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ABSTRACT

The final report outlines a statewide project which provided basic emergency technicians (EMT) training. The use of videotaped instruction, development of testing materials, and the development of cooperative voluntary structures on the State and community level are discussed. Objectives emphasize: (1) uniform training throughout the State, (2) training program continuation with the establishment of a continuous EMT program within the State's educational system, and (3) support and involvement of voluntary and government agencies concerned with emergency services. The implementation of the project is presented in outline form and includes a training needs survey, instructional materials bibliography, discussion of the 10 district programs in terms of counties included, type of instruction, number and success rate of students, and in-hospital training; videotaped instruction; test development; promotion; and the continuation of the training programs and materials developed for them. Summary and evaluation sections are positive and a list of six recommendations for replication in other States is provided. Appended materials make up the bulk of the document and include: South Carolina Ambulance Attendants Law, program related documents, a coordinator's guide for videotape instruction, a comparison of live and videotaped instruction in relation to learning effectiveness, and sample publicity. (LH)

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A STATEWIDE PLAN TO TRAIN EMERGENCY MEDICAL TECHNICIANS

Final report of a 12-month project performed by the South Carolina Hospital Association under contract number NIH 71-4163 with the National Institutes of Health.

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INTRODUCTION

In June, 1971, the South Carolina Hospital Association, under contract with the National Institutes of Health, initiated a year-long, statewide project to train emergency medical technicians. A number of concerns and precipitating events led to the Association's decision to undertake the training effort.

South Carolina has for years experienced an outrageously high highway accident death rate and significantly high coronary death rate. Hospital personnel and physicians have long expressed frustration and consternation over the number of victims who reached emergency facilities too late for effective treatment when it was apparent that adequate first aid or emergency care at the scene and en route to the hospital could have prevented death or permanent disability. Since distance and unequal distribution of health facilities and personnel present real barriers to the rapid provision of hospital emergency care in South Carolina, it was obvious to emergency care leaders in the State that priority should be given to the training of emergency medical care technicians throughout the State, to provide a cadre of competent personnel to render safe, immediate care in all types of emergency situations in both rural and urban areas. The enactment of an ambulance attendants law by the South Carolina General Assembly on June 18, 1971 (See Appendix A) gave impetus to the training effort and in some respects aided recruitment into Emergency Medical Technician course, but the decision to undertake the training effort had been made prior to its passage.

In planning the statewide training project, certain elements were considered of primary importance: 1) the training should be offered uniformly throughout the State. It was agreed that even though enrollment in rural areas might fall below that of urban areas, the special needs of people in sparsely populated areas warranted the conduct of classes in those regions. 2) the project must lay the groundwork for continued training and must lead to the establishment of approved, continuous Emergency Medical Technician programs within the State's educational system and 3) the project must enlist and obtain the full support and involvement of all governmental and voluntary agencies and institutions concerned with the provision of emergency services. These concerns were embodied in the project's eight objectives:

1. Work with community organizations, regional comprehensive health planning bodies, health institutions, medical and paramedical organizations, and others to identify the needs for training of emergency medical service personnel in each comprehensive health region.

2. Develop a plan of instruction for training emergency medical technicians in each region.

3. Conduct in each of the State's ten planning regions, or combinations thereof, courses to prepare emergency medical service technicians to perform expected functions adequately and safely, thereby protecting the health and safety of citizens and facilitating the delivery of improved emergency medical care. Courses will be scheduled on a sequential basis to make optimum use of equipment and to accomplish the work in the allotted time period.

4. Videotape those portions of the standardized curriculum requiring instruction by physicians and other specialized health personnel. Test scores of groups of students, those who received live instruction only, and those who received combined videotape and live instruction will be compared, to determine whether or not there is any significant difference in the level of learning achieved by the students.

5. Create in each of the ten regional health planning districts of the State, in coordination with the areawide planning bodies, an ad hoc committee on regional emergency medical services and training. These ad hoc committees, composed of representatives from local hospitals maintaining emergency departments, the regional health planning council, local medical societies and members of the State Committee on Trauma, emergency department personnel, and other selected individuals, shall advise the regional course coordinator-instructor.

6. Develop, administer and tabulate the results of a pre-enrollment biographical and skill profile.

7. Promote public and professional acceptance of new concepts in the delivery of emergency medical services in the following ways:
   1) report on the purpose and progress of each Emergency Medical Technician Training Program at frequent intervals to the regional comprehensive planning councils, all hospitals and medical societies in the region, all concerned and involved governmental bodies and law enforcement agencies, and the news media in the region; 2) encourage local hospital support for the program, especially the in-hospital training phase; 3) assist in developing the in-hospital portion of the instructional program in such a way as to promote staff interest in the aims and objectives of the program, advising the community of the benefit derived from the training effort.

8. Assist in promoting the continuation of the Emergency Medical Technician Training Programs on an annual basis, after their development, by such agencies and organizations as the South Carolina State Committee on Technical Education, the State Department of Vocational Education, the South Carolina Educational System, the State Board of Health, the South Carolina Hospital Association, the State MEDIHC Agency, and others.

PROJECT ORGANIZATION

Project NIH 71-4163 was officially initiated on June 30, 1971 by the South Carolina Hospital Association working in cooperation with the South Carolina State Board of Health, the South Carolina Department of Vocational Education, the South Carolina Committee on Trauma and the South Carolina Educational Television Center.

Mrs. Mary Jordan, R. N., served as coordinator of the Emergency Medical Technician Project from June 30, 1971 to August 30, 1971. Miss Carol Latimer, R. N., was employed as administrative assistant for the project on July 14, 1971 and became statewide project coordinator in September upon the resignation of Mrs. Jordan. A secretary for the project, Mrs. Rosie Cromer, was employed August 2, 1971. Mrs. Elisabeth Alford, Deputy Director, South Carolina Hospital Association, was administratively responsible for the project throughout its conduct. Other Hospital Association staff members made significant contributions to the project's success.

David Tribble, M. D., was originally hired as a medical consultant but resigned shortly thereafter due to inadequate time to carry out the extra responsibilities. F. W. Clemenz, M. D., was then hired as medical consultant. Dr. Clemenz is a 1960 graduate of Indiana University Medical School; served a general surgical residency at Wilford Hall, U. S. Air Force Hospital, 1962-1966. At the time of his discharge in 1971, he was Chief of Surgery and Vice Commander of the hospital at Shaw Air Force Base in Sumter, South Carolina. Dr. Clemenz's chief roles were advisor to the test consultant and on the production of ETV tapes. He also assisted the physicians teaching the live courses.

Professor Carl N. Shaw, Ph. D., a specialist in test development in the School of Education, University of South Carolina, Columbia, South Carolina, was retained as a consultant to develop a pre-test as an instrument to measure pre-knowledge, three written tests with performance evaluation forms, and a final test.

Robert L. Brown, Ph. D., Industrial Psychologist, of Brown and Associates in Greenville, South Carolina, was sub-contracted to develop a biographical profile and evaluate merits of all live and combination live and taped courses.

Cooperating agencies were invited by the Hospital Association to participate in project planning and guidance prior to the actual inception of the project. Representatives of the cooperating agencies formed the nucleus of the Statewide Advisory Committee of the Emergency Medical Technicians Training Program. The original members were:

Cecil Johnson, Ph. D. - Chairman
Director - Office of Vocational Education
State Department of Education
Columbia, South Carolina

Mr. Earl Mitchell, Jr.
Director - Division of Emergency Health
State Board of Health
Columbia, South Carolina

Mrs. Mary Snipes
Consultant - Health Program
Program and Planning Division
Department of Vocational Education
Columbia, South Carolina

Mr. E. H. Jones
Chief Supervisor - Program Planning and Development
Department of Vocational Education
Columbia, South Carolina

Mr. Ernest Littlejohn
Administrative Assistant
Office of Emergency Health Services
State Board of Health
Columbia, South Carolina

Jack Mullins, Ph. D.
Deputy Director
State Committee for Technical Education
Department of Technical Education
Columbia, South Carolina

Mr. John Austell
Chairman - Allied Health Division
Midlands Technical Education Center
Columbia, South Carolina

Mr. Jerry Keeter
Associate Director of Education
S. C. Educational Television
Columbia, South Carolina

The Statewide Advisory Committee was gradually expanded to include representation from other organizations concerned with emergency services. Additional members included:

Mr. Wayne Vestal
Director - Carolina Ambulance Service
Columbia, South Carolina

Mr. J. C. Munn
Supervisor
York County Ambulance Service
York General Hospital
Rock Hill, South Carolina

Wayne Scott, Ph. D.
Director - Division of Educational Services
State Committee for Technical Education
Columbia, South Carolina

Mr. Alexander duHays
Senior Training Implementor
S. C. Heart Association
Columbia, South Carolina

Mr. Jake Salley
Acting Curriculum Specialist
State Committee for Technical Education
Columbia, South Carolina

Mr. Larry Dozier
Administrative Assistant
Spartanburg General Hospital
Spartanburg, South Carolina

The Statewide Advisory Council met monthly throughout the project period. Their advice to the staff and to the Hospital Association was invaluable in strengthening project efforts and in developing workable solutions to problems as they arose. In addition, members of the Advisory Council provided valuable and effective liaison between the Emergency Medical Technicians Project and the various organizations affected by or involved in project activities. They were particularly helpful in obtaining the assistance of local technical and vocational school administrators in conducting local training programs, in working out mutually acceptable procedures with the approval and certifying agency for applying for course approvals and certification of graduates of courses and in developing criteria for applicant acceptance, course location and instructor qualifications. The Hospital Association is extremely grateful for the hours of service contributed by members of the Statewide Advisory Council and sincerely regards the advice and support of this group as a key factor in success of the project. (See Appendix B)

IMPLEMENTATION OF PROJECT AND ACHIEVEMENT OF OBJECTIVES

A. Identification of Training Needs

One of the first major activities undertaken by the Statewide Advisory Committee was the performance of a training needs survey. The survey questionnaire (See Appendix C) was developed by the Committee and mailed and tabulated by the South Carolina Department of Vocational Education. Questionnaires were mailed to all hospitals, ambulance services, rescue squads, fire departments and law enforcement agencies. Two hundred and five returns were received, with 120 affirmative responses indicating a total of 1,862 persons desiring EMT training. Analysis of persons desiring training by place of employment and place of residence is given on the following table:

Place of Employment	Number Desiring Training	Place of Residence	No. Desiring Training
Hospitals	100	District no. 1	279
		District no. 2	85
Ambulance Service	236	District no. 3	65
		District no. 4	472
Rescue Squads	142	District no. 5	150
		District no. 6	32
Police Departments	646	District no. 7	157
		District no. 8	155
		District no. 9	155
Fire Departments	738	District no. 10	95
	1,862		1,862

The results of the training needs survey clearly substantiated the need for the statewide training effort. In view of the large number of potential students representing substantially more persons than could be trained under this project the Statewide Advisory Committee recommended that priority for admission to courses should be based on present employment in emergency services. First priority was given to presently employed ambulance drivers, second priority to volunteer rescue squads and third and fourth to fire and police departments.

B. Plan of Instruction

The Statewide Advisory Committee, after reviewing curriculum being used in other states for EMT training, selected the textbook Emergency Care and Transportation of the Sick and Injured, by the American Academy of Orthopaedic Surgeons accompanied by the Instructors Lesson Plans and Course Guide and Course Coordinator Orientation Program and Concepts and Recommendations (Basic Training Program for Emergency Medical Technician-Ambulance), published by the U. S. Department of Transportation and National Highway Safety Bureau as the basic documents in the curriculum and instruction plan. Additional texts were used as supplements, including:

Medical Self Help Training. Public Health Service, U. S. Department of Health, Education and Welfare and Office of Civil Defense, U. S. Department of Defense, 1965.

American National Red Cross. First Aid. 4th Ed. Doubleday and Co.: Garden City, New York, 1957.

Committee on Cardiopulmonary Resuscitation, American Heart Association. Cardiopulmonary Resuscitation, A Manual for Instructors. American Heart Association: New York, 1967.

Committee on Cardiopulmonary Resuscitation, American Heart Association. Emergency Measures in Cardiopulmonary Resuscitation, Discussion Guide. American Heart Association: New York, 1965.

Committee on Cardiopulmonary Resuscitation, American Heart Association. Training of Ambulance Personnel in Cardiopulmonary Resuscitation, Discussion Guide for Slide Set. American Heart Association: New York, 1965.

First Aid for Laryngectomees. International Association of Laryngectomees. American Cancer Society: 219 East 42nd St., New York, N. Y., 1962.

Henderson, John. Emergency Medical Guide. 2nd Ed. McGraw-Hill Paperbacks No. 28146.

American Medical Association. The Wonderful Human Machine. , AMA: Chicago, 1967.

Several additions were made to the curriculum, most notably the inclusion of a three-hour lesson and practice session on mobile cardiopulmonary resuscitation. (See Appendix H of Coordinator's Tape Guide)

In order to fulfill one of the original objectives of the project to test the relative effectiveness of videotaped instruction versus all live instruction, it was necessary to determine in advance which classes would receive live instruction, and which would receive the combined live-video instruction. The advice of project consultant, Dr. Robert Brown, Industrial Psychologist, Greenville, South Carolina, was obtained in designating the locations of the two types of courses, inasmuch as Dr. Brown had been retained to evaluate the relative success of live and video courses and the proper selection of the live sample was critical to the validity of the final results. Following Dr. Brown's advice and computer analysis of regions as to the degree of urbanization, income levels, average education obtained and other demographic characteristics, the following schedule was approved:

Program Order	District	Counties	Education Facility	Instruction Method
1. Greenwood	2	Abbeville Edgefield Greenwood Laurens McCormick Saluda	Voc. Educ.	Live
2. Charleston	9	Charleston Berkeley Dorchester	Tech. Educ.	Live
3. Marion	7	Chesterfield Darlington Dillon Florence Marion Marlboro	Voc. Educ.	Live
4. Rock Hill	3	Chester Lancaster Union York	Tech. Educ.	Live
5. Spartanburg	1	Anderson Cherokee Greenville Oconee Pickens Spartanburg	Tech. Educ.	Live-Video

Program Order	District	Counties	Education Facility	Instruction Method
6. Orangeburg	5	Aiken Allendale Bamberg Barnwell Calhoun Orangeburg	Tech. Educ.	Live-Video
7. Kingstree	9	Georgetown Horry Williamsburg	Manpower Center	Live-Video
8. Columbia	4	Fairfield Lexington Newberry Richland	Voc. Educ.	Live-Video
9. Beaufort	10	Beaufort Colleton Hampton Jasper	Tech. Educ.	Live-Video
10. Sumter	6	Clarendon Kershaw Lee Sumter	Tuomey Hosp. in cooperation with Tech.	Live-Video

A map of Districts is attached as Appendix D.

In addition to selecting and revising the classroom portion of the curriculum the Statewide Advisory Committee also developed standards and guidelines for the ten hour in-hospital portion of the training. Recommended criteria for use of a hospital emergency facility for EMT training were developed and furnished to the State Board of Health for their use in course approval. These criteria included hospital accreditation by the Joint Commission on Accreditation of Hospitals, and a sufficient number of true emergency cases to provide learning experience. It was decided to devote the full ten hours of in-hospital training to the emergency department. Ten hours was felt to be barely adequate for learning emergency department procedures; therefore, use of other departments in the hospital did not appear to be the best use of instructional time in a basic EMT course. Students were permitted to begin the in-hospital portion of their training at the completion of Lesson 16 of the classroom training.

C. Conduct of Courses

The first of the ten regional courses was initiated in Greenwood, South Carolina (District 2) on September 13, 1971. The tenth course was initiated on March 24, 1972, in Sumter, South Carolina (District 6). A profile of each class is given below:

District No. 2

The first of the four live courses was established in Greenwood, South Carolina, through the Greenwood Area Vocational Center for Comprehensive Health Planning District Number 2. The regional nurse coordinator for this course was Mrs. Virginia Ek, R. N., Nursing Supervisor at Self Memorial Hospital, Greenwood, South Carolina, who had had extensive experience in emergency room nursing. The teacher assistant was Mr, William Crisp (A.R.I.T.) an inhalation therapist and head of respiratory therapy at Self Memorial Hospital. He was involved in setting up Carolina Ambulance Service in Columbia, South Carolina, and is on the state CPR faculty of the South Carolina Heart Association. Physicians from this area agreed to teach lessons as recommended for this course.

There were 44 students accepted in this class initially. Three of these dropped, and 41 completed the course. Of the students completing the course, there were no failures. This was the first of three classes that had no failures. The class mean on cumulative tests was 83% with a standard deviation of 6.57.

The ten hours of in-hospital training were held at Self Memorial Hospital in Greenwood. The course began September 13, 1971, and was held on Monday and Wednesday nights from 6:30 to 9:30 p. m. The coordinator for this course was asked to meet with the Greenwood County Delegation and great interest was shown in complying with the South Carolina Ambulance Bill and upgrading emergency medical services. The county delegation awarded a bonus to people from this county upon completion of the course.

District No. 9

The second live course was set up in Charleston for comprehensive planning district number 9. Mrs. Rosemary Meyer, R. N., was hired through the recommendation of Dr. V. W. H. Campbell, Administrator of Charleston County Hospital, where the ten hour in-hospital training was held. Dr. Van Grubbs, an intern in surgery, was hired as teacher assistant. Registration was held at the Berkeley, Dorchester, Charleston Technical Education Center where the course was held. Fifty-seven were enrolled for this course upon recommendation of the steering committee. This course began on October 4. Classes were held on Mondays and Wednesdays from 7:00 to 10:00 p. m. Classes were completed on January 14, 1972.

Of the 57 original students, 15 dropped and 42 completed the course with 3 failing, resulting in a percentage of 75% satisfactorily completing the course. The cumulative test score mean was 78% with a standard deviation of 16.98. The cumulative performance rating mean was 80% with a standard deviation of 9.38.

The high drop-out rate for this course was the result of transferring personnel within the police department of Charleston which provides ambulance service. A second EMT course has been initiated by the Charleston Technical Education Center where the course was held, utilizing the same faculty along with the videotapes made pursuant to this contract.

District No. 7

The third course was held in Marion, South Carolina, for District Number 7, at the Marion-Mullins area vocational center. Mrs. Anna B. Speth, R. N., a Duke University graduate and instructor of the L. P. N. School at the Vocational Center in Marion was hired as regional nurse coordinator for this district. The teacher assistant was Mr. Joe Boatwright, a first aid and CPR instructor and city manager of Marion, South Carolina. Recommended specialized physicians taught the curriculum as outlined in DOT's coordinator's guide.

Initially there were 36 students enrolled in this course which began October 25, 1971, and was completed on February 3, 1972. Of the original 36 students, 10 dropped early in the course, possibly realizing that they were not capable of passing which is indicated in pretest scores. The remaining 26 students completed the course satisfactorily with a cumulative test score mean of 83.23% and standard deviation of 6.39. The cumulative performance rating mean was 81.0%.

In-hospital training for this course was done in 3 hospitals. McLeod Memorial Hospital in Florence, S. C., Marion County Memorial Hospital in Marion, S. C., and the Mullins Hospital in Mullins, S. C. It was felt that the students should receive this training in the hospitals where they would most frequently be transporting patients.

District No. 3

Rock Hill, South Carolina, was the site of the fourth and final all live instruction course which began on November 16, 1971, and was completed on March 7, 1972, at the York County Technical Education Center. The in-hospital training was done at the York County Memorial Hospital in Rock Hill, South Carolina.

Mrs. Janice Moses, R. N., a former instructor at the Technical Education Center, and presently employed in the coronary care unit at York County Hospital , was hired as nurse coordinator along with teacher assistant Mr. J. C. Munn, Director of York County Hospital Ambulance Service.

Of the 39 originally enrolled, there were 2 dropouts and one failure, leaving a graduating class of 36 or 95%. The cumulative test score mean for this class was 81% with a standard deviation of 13.71 while cumulative performance rating mean was 76% with a standard deviation of 5.66.

District No. 1

The combination live instruction with videotapes course was begun in Spartanburg on December 6, 1971, and completed on March 25, 1972. It was felt that a very stong coordinator was needed for this course and Mrs. Gladys Hudgens, R. N., the wife of a physician and instructor for the L. P. N. School at Spartanburg Technical Education Center filled this position. The original teacher assistant hired, Mr. Dewitt Woodward, resigned shortly thereafter and Mr. Donald Stevens, CPR instructor and Director of Spartanburg Red Cross Chapter replaced him.

The videotapes were received well in this class of 46 students. Thirty-nine students completed the course (7 dropped). There were 2 failures — 37 graduated with a cumulative test score mean of 78% and standard deviation of 14.98. On cumulative performance rating, the mean was 86% with a standard deviation of 6.80. Spartanburg County exempted itself from the ambulance bill, which may have been the reason for the high dropout rate in this class. The in-hospital training was done in Spartanburg General Hospital and Cherokee County Hospital, Gaffney, South Carolina.

District No. 5

Orangeburg Regional Technical Education Center, in affiliation with the Orangeburg Regional Hospital, was the location of the second ETV course which began on January 17, 1972, and was completed on April 12, 1972. Miss Claudia Zeigler, R. N., Inservice Director at Orangeburg Regional Hospital, was employed as nurse coordinator, while teacher assistant duties were shared by Mr. Wayne Vestal, an EMT instructor certified by Dunlap & Associates, and Mr. Fred McCurdy, both of Carolina Ambulance Service in Columbia, South Carolina.

There were 47 students enrolled with 3 dropouts for the course. Forty-four (94%) completed the course with 3 failures. The cumulative test score mean was 77% with a standard deviation of 21.85 while the cumulative performance rating mean was 73% with a 8.97 deviation.

District No. 8

Mrs. Judy Purcell, R. N., Director of Nursing at the Williamsburg County Hospital and Mrs. Sandra Harrington, Emergency room nurse of the same hospital, worked together as coordinators for the course which was held in Kingstree, South Carolina, from February 7, 1972, through May 8, 1972. Robert Sullivan, EMT and CPR instructor was hired as teacher assistant.

The classes were held at the Regional Manpower Center, a division of TEC in Kingstree, South Carolina, and the ten hours of in-hospital training were performed in the Williamsburg County Hospital.

There were 33 students enrolled in the class. During the course there were 7 dropouts and 2 failures which left 24 students satisfactorily completing the course. The cumulative test score mean was 79% with a standard deviation of 16%, while the cumulative performance rating score was 79.7% with a standard deviation of 6.16%.

District No. 4

Organization for this course was held in Columbia, South Carolina, at the Wilson Area Vocational Center. It was carried out by Mr. Wayne Vestal, hired as regional coordinator, and Mr. Fred McCurdy as teacher assistant. Mr. Vestal is Director of Carolina Ambulance Service in Columbia and has assisted with the American Academy of Orthopaedic Surgeons annual statewide seminar for the last few years. He is also certified through Dunlap & Associates, publisher of the course lesson plans, as an EMT instructor. He and Mr. McCurdy were teacher assistants for the course in Orangeburg.

There were initially 49 students enrolled with a dropout of 3. All remaining 94% of total students passed the course with a cumulative test score mean of 83%, standard deviation of 13.45%, and a cumulative performance rating mean of 90% with a standard deviation of 3.54%.

This class was begun on February 22, 1972, and completed on May 25, 1972. The in-hospital training was done at Richland Memorial Hospital, Lexington County Hospital, Kershaw County Hospital, and South Carolina Baptist Hospital, according to the area in which the student would be working. It was recommended that all students do a portion of the in-hospital training at Richland Memorial Hospital because of its large emergency room patient load.

District No. 10

The ninth EMT class of this project began on March 16, 1972, in cooperation with the Beaufort Area Technical Education and Manpower Center and was completed on June 6, 1972.

Lt. J. G. Catherine Lawrence was the nurse coordinator. She is the Coronary Care Unit nurse at the Naval Hospital and has had extensive emergency room experience. Teacher assistants for the course were Mr. J. Mills Black, CPR instructor, and H. M. I. John Moffitt, also of the Naval Hospital.

There were 36 students initially enrolled with a dropout of 7, six failures and 23 satisfactorily completing the course. The cumulative test score mean was 77% with a student deviation of 29.70. Cumulative performance rating mean was 67% with a student deviation of 5.44. This was an unexpected failure rate and no explanation is readily available, since the pretesting indicated that the failure rate for this group would not be that high.

The in-hospital training was done in the Beaufort County Memorial Hospital, Colleton County Hospital, and Hampton General Hospital.

District No. 6

The tenth and final course was held in Sumter, South Carolina, at the Tuomey Hospital (Inservice Department) in cooperation with the Sumter Technical Education Center.

Dr. Davis Moise, a general surgeon, coordinated the course and Mrs. Ann Reynolds, R. N., inservice director of Tuomey Hospital in Sumter, was teacher assistant. Dr. Moise accepted the position in this area because of his strong interest in emergency care and previous involvement in training the Tuomey Hospital Ambulance Personnel. This class began on March 24, 1972, and was completed on June 12, 1972.

The original enrollment for this class was 46, of which 3 dropped out, 2 failed and 41 students satisfactorily completed the course. The cumulative test score mean was 83% with a standard deviation of 15.84, while the cumulative performance score mean was 72% with a standard deviation of 15.84.

The in-hospital training for this class was done at Tuomey Hospital in Sumter, South Carolina.

Prior to the initiation of each course, the project coordinator selected faculty for each district, held a training conference for faculty, visited hospitals in the area to enlist their support, to gain assistance in organizing ad hoc district committees, to advise on course organization, and to obtain recommendations for appropriate course faculty.

D. Organization and Function of District Ad Hoc Steering Committees

An ad hoc steering committee was organized in each of the state's ten comprehensive health planning districts prior to registration for each course. The purpose of each committee was to advise the course faculty and the statewide project coordinator on such items as: interest in training not identified in the original survey of training needs, optimum time and location for the course, and any special problems in the area which might affect the success of the training effort. In addition to carrying out their appointed tasks, these ad hoc steering committees served several important functions. Members were given ample opportunity to express any misgivings they might have about the state's newly enacted ambulance law, which initially created considerable resentment in many areas. Representatives of the State Board of Health, the official certification agency, attended meetings of the various ad hoc committees to clear up misunderstandings about the intent and implementation of the ambulance attendants certification law. As a result of the open discussions at the ad hoc committee meetings, many of the early opponents of the law became some of the strongest supporters of the EMT training programs.

The members of the ad hoc steering committees also served a vital role in communicating to the community and to the organizations they represented, the progress and achievements of students in the EMT programs. This informal liaison proved valuable in improving the status and image of the emergency medical technicians and in building community support for upgrading of ambulance services.

These committees were broadly representative of the communities involved and the agencies concerned with emergency services. Composition varied from district to district, but the typical committee included representatives from hospitals, the medical profession, professional nurses, ambulance services, American National Red Cross, Civil Defense, Comprehensive Health Planning, educational agencies, police departments, and fire departments. (See Appendix E)

VIDEOTAPED INSTRUCTION

The curriculum was reviewed by the statewide project coordinator, production staff of the South Carolina Educational Television Center, and medical consultant for the project, Fred W. Clemenz, M. D., to determine which portions were appropriate for videotape presentation. The identified content for taping was segmented into 39 teaching modules and appropriate faculty was selected upon recommendation of the Statewide Advisory Committee, Dr. Clemenz, the State Committee on Trauma and the project coordinator. (See Appendix F)

Videotaping of instructional material was begun in September, 1971, and essentially completed by February, 1972. All teaching modules were reviewed by the medical consultant and the project coordinator. Editing and some retaping was completed after the tapes were reviewed for accuracy and effectiveness of presentation.

The decision was made early in the project to utilize 1/2 inch videotape and portable playback equipment, rather than to use the state's statewide closed circuit educational television network. While videotape playback equipment does present some disadvantages, primarily those of weight and maintenance problems, it was considered desirable to make use of the greater scheduling flexibility afforded by the portable, in-classroom playback equipment. Having the tapes and the playback monitor at the disposal of the instructor allows ample time for review of material by faculty prior to class time. It also allows for replay of instructional material if necessary, and for starting and stopping tapes at the convenience of the instructor. Telecast, on the other hand, would have forced a set time schedule on classes and instructor.

An instructor's guide to use of the tapes in correlation with the lesson plans was prepared by the project coordinator. (See Appendix F) This document indicates the teaching modules contained on each tape reel, the length of time of each segment, and the content covered.

An instructor's orientation program was also recorded on videotape. Faculty for this segment, which is intended to be an introductory lesson for future course coordinators, consisted of three individuals who had served as coordinators, along with the project coordinator. Content of this program includes effective use of videotapes, review of texts and supplementary materials, effective scheduling of written and performance tests, course organization and various administrative considerations.

TESTING - PRE-ENROLLMENT, ACHIEVEMENT AND PERFORMANCE

Several types of tests were incorporated into the overall project design, to achieve several different purposes. A pre-enrollment test battery was administered to each class, the results of which were to be used at the completion of the project to determine whether or not any minimum criteria, such as educational level, I. Q., experience in the field, could be established for entrance into future courses. A pre-knowledge test, dealing with EMT course content, was also administered prior to beginning of classes, to be used as a measure of learning in comparison to final examination scores. Three written achievement tests, a final examination and performance tests were developed, to determine not only the student's achievement and suitability for certification, but also as a comparative measure to determine the relative effectiveness of all live versus combined videotaped and live instruction.

The pre-enrollment test battery was developed by Robert L. Brown, Ph. D., Psychologist, Greenville. The pre-knowledge test, three achievement tests, final examination, and performance tests were developed by Carl N. Shaw, Ph. D., Assistant Professor, College of Education, University of South Carolina, with assistance from Dr. Brown and Dr. Clemenz. A full report on all test results, prepared by Dr. Brown, is attached as Appendix G.

To summarize the various indications of the test results, it was demonstrated in the project that there was no significant difference in learning between the all live classes and the combined videotaped and live classes; familiarity with medical terminology and I. Q. are valid indicators of potential achievement in EMT training classes; and a significant amount of learning took place in all classes, even though, as it will be recalled, priority in admission to the classes was awarded to those already employed in the emergency medical services field.

PROMOTION OF PUBLIC AND PROFESSIONAL ACCEPTANCE OF NEW CONCEPTS IN THE DELIVERY OF EMERGENCY MEDICAL SERVICES

Conduct of the emergency medical technician courses and the attendant publicity proved to be an extremely effective means of acquainting the public, elected officials and professionals in the health field with the need and the means for improving the delivery of emergency medical services. Announcement of the courses in each region was made not only by direct mailing and posters distributed to all employers of emergency medical services personnel, but also through all available mass media. Excellent newspaper coverage was received for all programs. Samples are attached as Appendix H. Graduation exercises for each class also focused public attention on the community benefit derived from the conduct of classes. Keynote speakers for the class exercises included political leaders, and local leaders in the health field, as well as one nationally prominent figure in emergency medical services. Captain Charles Waters, Chief, Jacksonville, Florida, Fire Department, who is well known for his work in organizing and directing a model system of countywide emergency medical services, spoke to the graduating class in Spartanburg (District number 1). While in Spartanburg, Captain Waters also conducted a slide-lecture presentation for community leaders, to explain the need for and the benefits of well trained emergency service personnel. Each of the speakers emphasized the impact the training effort should have in improving emergency services in the area and expressed appreciation to the graduates for their efforts on behalf of the public welfare. Many of these talks received widespread publicity and did much to acquaint the public with the purposes of the training programs.

Reports on the progress and accomplishments of the training project were made monthly to the Emergency Medical Services Advisory Council of the South Carolina State Board of Health by Mrs. Elisabeth Alford, a member of the Council. Quarterly reports on the project were made to the Board of Trustees of the South Carolina Hospital Association, to keep hospital administrators informed of the accomplishments of the program. The project coordinator attended all Assembly meetings of the Association held during the project year to provide hospital personnel with additional information about the program. The project coordinator also appeared at the International Congress of the Association of Rescue Squads, Myrtle Beach, S. C. (on July 29, 1971) to explain the purposes of the program. Other appearances by the project coordinator to explain the program included a television interview on WNOK-TV, Columbia, S. C., a presentation at a workshop for directors of nursing service of small hospitals sponsored by the National League for Nursing in Atlanta, Georgia, and a visual display prepared by the Hospital Association staff for the Second Annual Conference on Emergency Medical Services, Bethesda, Maryland, in December of 1971. A simple brochure describing the project was prepared and distributed at the Bethesda conference and other professional meetings.

CONTINUATION OF TRAINING

Plans for continuation of the EMT training effort on a statewide basis are fully developed. As a result of the accomplishments of the project, the groundwork has been laid for an efficient, low-cost method of providing basic training on a regular basis. Videotapes of the core curriculum have been provided to the State's Technical Education Commission and centers and to the State Department of Vocational Education. (The tapes were produced in two different video formats, to accommodate the equipment already in place at the various technical education and vocational education centers.)

A curriculum and tape guide has been prepared by the Hospital Association staff for the use of faculty of educational agencies in conducting future courses. The South Carolina State Board of Health has been named repository for necessary training equipment. The standardized final examination for the basic EMT course has been given to the South Carolina Department of Education, along with testing keys. The Department of Education has agreed to retain control of the test and to administer the test under controlled conditions to approved courses.

In cooperation with the State Board of Health, the project coordinator is developing a regional training program for future course coordinators and instructors. The Statewide Advisory Committee for the EMT training project voted to continue its existence on a voluntary basis to provide further guidance as needed for the continued training effort. The South Carolina Hospital Association has offered its meeting facilities to the group and will continue to provide staff input.

The South Carolina Hospital Association, has undertaken a three month study to determine the feasibility of providing advanced training for emergency medical technicians in the state. The study has been funded in part through a developmental component grant from the South Carolina Regional Medical Program. The actual conduct of advanced training programs will depend upon study findings and the availability of training funds.

SUMMARY AND EVALUATION

During the twelve months beginning June 30, 1971, the South Carolina Hospital Association, West Columbia, South Carolina, in cooperation with a number of other state and voluntary health agencies, undertook a statewide project to provide basic emergency medical technicians training, to test the feasibility of using videotaped presentations for a portion of this training, to develop testing materials that would measure performance and would identify which, if any, personal attributes are predictive of success in the course, and to create cooperative inter-organizational voluntary structures on both a state and community basis to guide the initial effort and to ensure the continuation of necessary EMT training.

As evidenced in the body of this report, all objectives were accomplished to a reasonable degree of satisfaction. A statewide inter-organizational Advisory Committee was formed to guide the project and proved to be effective in directing the project, resolving conflicts and solving operational problems as they arose. On a regional level, ad hoc inter-organizational committees performed similar functions and were successful in recommending practical solutions to problems in conducting regional courses and in gaining community support for the training efforts.

Ten regional basic emergency medical technicians training programs were successfully conducted. Four of the courses utilized an all live faculty, drawing on highly qualified physician specialists and paramedical personnel in the respective regions. Six courses utilized a combination of live and videotaped instruction, with the taped instruction being those portions of the curriculum dealing with basic theory, anatomy and physiology and initial descriptions of procedures used by the emergency medical technician. Retention and completion rate in both types of courses were excellent. While there was an 18% dropout rate in the live classes, as compared to only 11% in the videotape courses, the difference is not statistically significant. The live instruction classes produced 79.2% graduates while the taped instruction produced 81.3% graduates. This difference also is not considered statistically significant. Inasmuch as pre-tests indicated that both groups were similar in all measures, the results would strongly indicate that videotaped instruction is equally effective in training emergency medical technicians as is the traditional all live instruction method.

Tests developed under the project were found to be useful measurement tools and should help to assure further effectiveness in future programs. It was determined by use of the pre-test and the post-test, prepared by Carl N. Shaw, Ph. D., Assistant Professor, College of Education, University of South Carolina, that learning did indeed take place. There was an average gain of 21.67 points between pre- and post-tests for the live groups and an average gain of 21.06 points for the taped group. This gain is highly significant and may be considered equal under both training methods.

A number of pre-enrollment tests were administered to students in these courses. Of these, the Test of Awareness (I. Q. test) and the 20-item Medical Terminology Test proved to be predictive of performance in project EMT classes. These tests may be beneficial in future screening of prospective students for this type of training. Had the enrollees in these project classes been screened by these two tests, the performance would have been quite different. The number of failures could have been significantly reduced, by rejecting those who demonstrated an I. Q. of less than 100 except where they demonstrated a good level of familiarity with medical terminology. For example, persons in the 90-99 I. Q. range could be rejected unless they scored 6 or more on the terminology test, while those in the 80-89 I. Q. range would be required to score 11 or more on the terminology test.

The average achievement score for the project group was 85.5%, while those who would have been rejected scored an average 71.7%. If a score of 75 is considered passing for the achievement test, approximately 10% of the selected students could be expected to fail, while 61% of the unselected group would be expected to fail. These pre-screening scores may be raised or lowered to fit the needs and objectives of future training programs.

A number of the state's technical education centers have indicated an interest in using the pre-enrollment tests and in following the recommendations in establishing admission requirements, after accumulation of further data and experience.

A performance checklist and rating system was also developed. The performance rating was obtained by giving one point for satisfactory and two points for excellent performance. Although the rater of the performance test may influence the score in terms of his own inclination toward strictness or leniency, the ratings in all but two classes showed significant relationship to achievement test scores as well as to aptitudes. This tends to indicate validity of the performance rating system.

Public and professional acceptance of the trained emergency medical technicians was accomplished most effectively through the efforts of the ad hoc steering committees which were appointed in each district and through the publicity promoting and explaining the individual courses. Strong opponents of the ambulance attendants certification law frequently became ardent supporters of local training efforts. One interesting side-light is that eleven counties originally exempted themselves from coverage under the certification law, as provided for in the legislation. After training had been undertaken and/or completed in the various regions, a number of counties introduced local legislation to remove their original exemption. There has also been considerable positive feed-back from emergency department personnel and emergency physicians as to the dramatic improvement which has been made in services provided by ambulance personnel. It is also interesting to note that without fail, every graduation speaker, most of whom were political leaders, made the claim during the ceremonies that his district or his county now had the finest ambulance service in the state, as a result of the training program.

Continuation of the training programs throughout the state have been virtually assured and will be carried out through a number of cooperative arrangements. The Statewide Advisory Committee has voted to continue in existence to help coordinate and advise on the conduct of future courses. Videotape sets have been turned over to the state's technical and vocational educational authorities, and the achievement tests will be controlled by the State Department of Education. Hospital Association assistance has been made available to the South Carolina State Board of Health for the conduct of four regional workshops to train course coordinators and instructors. A curriculum and videotape guide was also prepared by the project staff to ensure effective use of the videotaped material in future courses. Both educational agencies have indicated a definite interest in offering EMT courses as needed throughout the state and for a very nominal charge. These two agencies represent 46 educational facilities and serve all counties in South Carolina.

RECOMMENDATIONS FOR REPLICATION IN OTHER STATES

The project staff and other representatives of the South Carolina Hospital Association strongly recommend the approach used in project NIH 71-4163 for duplication and adaptation in other states.

Several factors appear to be of primary importance:

1. A statewide advisory or coordinating group is most important for directing a program of instruction that will be uniform in quality, content and effectiveness from area to area. The existence of a statewide group, representing all agencies involved in the governance or provision of emergency medical services, expedites communication, helps to eliminate duplication of effort, coordinates the work of various groups, and provides a means for the resolution of mutual problems or of conflicts. While this group should maintain effective liaison with regulatory agencies and educational institutions, and should contain representation from both, it is recommended that the statewide advisory group be a separate entity, so as to truly represent all interests.

2. A statewide coordinator of emergency medical training is an important asset in mobilizing all available resources, both personnel and equipment for the training, for ensuring a consistent level of quality in instruction, and for keeping public groups, professionals, health provider institutions, educators and students informed of changing trends in emergency services. Having a single source of information in this rapidly growing field is of great assistance to communities and institutions seeking to improve emergency medical services.

3. Videotaped presentations of core curriculum is highly recommended for inclusion in emergency medical technicians training courses in other states to the extent possible. Videotape is a relatively low cost, high quality means of presenting and preserving instructional material. It is also recommended that the videotapes produced in South Carolina be tested in another state, to determine what problems might be presented by accents and the absence of identification on the part of students with well-known local medical specialists and paramedics. It is entirely possible that student acceptance of the taped presentations in South Carolina was significantly influenced by the use of well-known South Carolinians. It is also recommended that when the videotapes are used, local physicians be invited to attend classes acting as resource persons. This would enhance students' identification with the Emergency Medical Team and increase and strengthen motivation.

4. In initial training efforts within a community, local steering committees should be used to help gain acceptance and understanding of both community and health leadership. The need for such committees will probably decline after the first class has been successfully graduated.

5. Provision should be made for maintaining a repository of training equipment in adequate supply. High-cost, low-use items, such as obstetrical mannikins and baby carriers may be maintained in a statewide repository as long as an individual is designated to coordinate scheduling and shipments, but items used frequently, such as CPR mannikins and backboards should be maintained locally by any educational or health agency intending to offer continuing courses.

6. Regionalization of training efforts in largely rural, low population density states is efficient, because it permits consolidation of resources, establishment of a relatively permanent faculty and gives students from different communities and agencies an opportunity to share information about varying policies, facilities and services. Travel distance to class should not exceed 30 miles or 45 minutes, if possible.

The South Carolina Hospital Association gratefully acknowledges the contributions of individuals and agencies to the success of this project. Without their cooperative spirit, their willingness to work together for progress without thought of recognition or reward, their innovative attitude and flexibility in investigating new approaches, new concepts and new ideas, and unflagging interests in the project's goals throughout the year, this project might well have failed to achieve its ends. The high degree of interagency cooperation undergirding the project clearly demonstrated the results which can be achieved by dedicated people working together in the best interest of the public, of emergency victims and the providers of health service.

APPENDIXES

Appendix A -	South Carolina Ambulance Attendants Law
Appendix B -	Minutes - Statewide Interagency EMT Advisory Council
Appendix C -	Survey Questionnaire
Appendix D -	Map of 10 Comprehensive Health Planning Districts in South Carolina
Appendix E -	List of District (Ad Hoc) Steering Committees And Meeting Minutes
Appendix F -	Videotape Teaching Modules For EMT Training Programs In South Carolina - Coordinator's Guide
Appendix G -	A Report On EMT Training Under Two Methods Of Instruction
Appendix H -	Newspaper Coverage (Sample Publicity)

APPENDIX A

SOUTH CAROLINA AMBULANCE ATTENDANTS LAW

(R679, H1423)

An Act To Provide For The Licensing And Regulation Of Ambulance Attendants; To Provide Penalties For Violations; And To Provide For An Emergency Medical Services Advisory Council.

Be it enacted by the General Assembly of the State of South Carolina:

SECTION 1. (1) "Ambulance" means any motor vehicle used for the transportation of patients.

(2) "Ambulance attendant" means any trained and qualified person responsible for the operation of an ambulance and the care of patients whether or not the attendant also serves as driver.

(3) "Patient" means any person who is ill, injured or otherwise incapacitated.

(4) "Board" means the South Carolina State Board of Health.

SECTION 2. No person shall act as an ambulance attendant in this State without first securing a certificate from the State Board of Health. Upon receipt of an application therefor the board shall issue a certificate to the applicant which shall be valid for one year from the date of issuance. No fee shall be required for the certificate which shall be renewed annually.

SECTION 3. Commencing July 1, 1972, each medical attendant shall be required to complete an American First Aid Course or its equivalent and a training program for emergency medical technicians.

SECTION 4. No rules and regulations shall be promulgated by the board to implement the provisions of this act.

SECTION 5. If the governing body of any county or the majority of a County Legislative Delegation residing in the county determines that it would not be in the best interest of the county to comply with the provisions of this act, the ambulance attendants of such county shall be exempted therefrom.

SECTION 6. The board may establish an Emergency Medical Services Advisory Council for the purpose of assisting and advising the board in the implementation of this act. Composition of the council shall include representatives from professional, medical, business and civic organizations throughout the State.

SECTION 7. Any person violating the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction shall be fined not more than one hundred dollars or be imprisoned for not more than thirty days.

SECTION 8. This act shall take effect January 1, 1972.

In the Senate House the 18th day of June

In the Year of Our Lord One Thousand Nine Hundred and Seventy-One.

EARLE E. MORRIS, JR.,
President of the Senate.

SOLOMON BLATT,
Speaker of the House of Representatives.

Approved the 22nd day of June, 1971.

JOHN C. WEST,
Governor.

Printer's No. 227—S.

APPENDIX B

MINUTES - STATEWIDE INTERAGENCY EMT ADVISORY COUNCIL

south carolina hospital association

MINUTES

The Advisory Committee

Of The

Emergency Medical Technicians Training Program

PRESENT	OTHERS PRESENT
Dr. Cecil H. Johnson	Mr. John Austell
Mrs. Mary Snipes	
Mr. E. H. Jones	
Mr. Earl M. Mitchell, Jr.	
Mr. Ernest Littlejohn	
Dr. Jack S. Mullins	
Mrs. Libby Alford	
Mrs. Mary L. Jordan	

The Advisory Committee of the Emergency Medical Technicians Training Program met at the South Carolina Hospital Association at 10:00 on May 21, 1971.

Dr. Johnson presided and asked that Mrs. Libby Alford bring everyone up-to-date on the progress of the project. Mrs. Alford explained that the grant was approved but would not be signed for about two weeks. She stated that many state agencies are involved including ETV and ITV. She said that the State Board of Health would be the agency that will certify the Emergency Medical Technicians for the state.

It was agreed by the Committee that a survey be conducted to help determine where programs should be offered. It was also agreed that the office of Vocational Education will assume responsibility of the survey and report the findings to the Committee.

The question was raised regarding criteria for the instructors for the course. Mrs. Alford stated that they would have to be good educators as well as experts in the field. It was brought out that there will be regional coordinators, instructors and teaching assistants available.

Material for the program was discussed and it was agreed that the textbook "Emergency Care and Transportation of the Sick and Injured" would be used.

The idea of ad hoc committees to assist the regional coordinators was considered quite good.

Merits of live class instruction and video-taped instruction were discussed and it was determined that both methods would be used and comparative studies made of results from each method.

Enrollment priorities were set to include ambulance attendants, rescue squads and other organizations involved in emergency medical care as space is available. It was suggested that all the organizations be surveyed and that some indication of the priority be indicated at that time.

It was announced that costs such as salaries, equipment, textbooks, etc. are set forth in the contract.

The criteria of the Regional Coordinator was discussed. She will have to be a person known in the area where the program is to be developed and will need teaching and administrative abilities. She need not be an R. N. but must have a medical background, and will work with the ad hoc committee as to location, instructors, etc. She will have to teach if necessary, therefore, the medical background is preferred.

Dr. Johnson announced that expendible and non-expendible items for the course can be purchased by Vocational Education (if needed).

Mr. Littlejohn called attention of the committee members to the necessity of correlating the instructors books with those to be used by the students.

He also reminded the members of the need for a standard test to be developed.

It was the concensus of the committee members that the best qualified physician lecturer or instructor be chosen regardless of the geographical area from which he or she may come and that advice from the members of the Committee on Trauma be sought for these selections.

Costs of taping were discussed. The portion to be taped will be approved by the TV production manager of ETV and the medical consultant in order to present effective programs.

Mr. Mitchell suggested that some tapes from a junior college in Florida could be borrowed and reviewed to see if any of these could be used in the course before actual taping of this program be done.

The question was asked if the Regional Coordinator be paid on a full-time basis or not. It was resolved that the Coordinator be paid only while course is presented in each locality.

September was proposed as a tentative starting date for the first program.

The next meeting date was agreed upon as June 21, 1971, at SCHA at 2:00 p. m.

With no further business, the meeting adjourned at 11:35 a. m.

south carolina hospital association

MINUTES

The Steering Committee

Of The

Emergency Medical Technicians Training Program

PRESENT

Dr. Cecil H. Johnson, Jr.
Mr. E. H. Jones
Mrs. Mary Snipes
Mr. Earl M. Mitchell, Jr.
Mr. Ernest Littlejohn
Mr. John Austell
Mrs. Libby Alford
Mrs. Mary L. Jordan

ABSENT

Dr. Jack S. Mullins

ALSO PRESENT

Mr. Gene Raybon

The Steering Committee of the Emergency Medical Technicians Program met at 2 p.m. on June 21, 1971 at the South Carolina Hospital Association.

Dr. Cecil Johnson presided and asked for results of the survey. Of the 674 total mailing, 76 returns were received; 54 responded affirmatively with a total of 1,809 people wanting to enroll in a program. Responses to the questionnaire were:

Hospitals	848
Ambulance Services	111
Rescue Squads	43
Police Departments	317
Fire Departments	490

A breakdown according to Comprehensive Health Planning Regions:

District # 1	38
District # 2	16
District # 3	22
District # 4	425
District # 5	47
District # 6	23
District # 7	92

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District # 8	29
District # 9	184
District # 10	53

Dr. Johnson stated that the Vocational Education Department will conduct a follow-up survey to encourage those who did not respond to do so.

He asked if the films from Florida had been received. Mr. Mitchell reported that he had had some difficulty in reaching the man from whom he was to seek to borrow the films. He stated that he would try to have them within two weeks for preview.

In answer to a question regarding the signing of the grant, Mrs. Alford reported that there was a hold up on two items in the budget which are the cost of the physician per hour and whether the grant would include the cost of the books to the students. She stated that the grant has to be signed by June 30, 1971; therefore, it will be in.

The question was asked if they should go ahead and start setting up the places for the programs. It was felt by the Committee that they should wait until the follow-up survey was returned and base it on both surveys.

Mr. Littlejohn reported to the Committee that he had a set of slides that might be of some aid to the instructors of the programs, and that they might be copyrighted with permission.

With no further business, the Committee set the date of July 9, 1971 at SCHA at 2 p.m. for the next meeting.

The meeting adjourned at 2:30 p.m.

south carolina hospital association

MINUTES

EMT Project
Inter-Agency Steering Committee
Board Room
South Carolina Hospital Association
July 9, 1971

Present	Absent
Dr. Cecil H. Johnson, Jr., Chairman	Dr. Jack S. Mullins
Mrs. Mary Snipes	Mr. E. H. Jones
Mr. Earl Mitchell, Jr	
Mr. Ernest Littlejohn	
Mr. John Austell	
Mrs. Libby Alford	**Also Present**
Mrs. Mary Jordan	
Miss Carol Latimer	Mr. Sam Greer

The chairman called the meeting to order at 2 p.m. Miss Carol Latimer, R.N., Administrative Assistant of the EMT training project was introduced.

Current figures from the ambulance personnel training needs survey were reviewed (attached to file copy). It was agreed that the response to the survey indicated substantial need for the training program.

After reviewing the survey, giving special attention to the number of potential candidates for training in the priority categories and known previous and existing training efforts, training program priorities and locations were established as follows:

Priority No.	Location	District	Facility
1	Greenwood	2	Area Vocational Center
2	Greenville	1	TEC
3	Charleston	9	TEC
4	Columbia	4	Wilson Area Vocational Ctr.
5	Orangeburg	5	TEC
6	Georgetown	8	To be determined
7	Sumter	6	TEC
8	Beaufort	10	To be determined
9	York	3	TEC
10	Marion	7	Area Vocational Center

Mr. Austell and Mrs. Snipes agreed to find out if the above named facilities would be available for use.

Mrs. Alford confirmed the award from NIH of $96,027 for the one-year training effort. She stated that this amount would allow purchase of basic texts for students and honorariums for physician lecturers as originally planned.

There was discussion of the need to determine whether the curriculum guide must be followed rigidly, especially with respect to class size and frequency of instruction, or whether some flexibility might be permitted. It was agreed that the guidelines were advisory rather than mandatory; that minor variations in scheduling or class size would not jeopardize students' eligibility for certification. It was suggested that the Committee on Training of the EMS Advisory Council be consulted for guidance on specific questions of this sort.

Mrs. Alford requested that the Steering Committee be expanded to include a liaison representative from the EMS Advisory Council and a representative from ETV. These were approved and Mrs. Alford was directed to request a liaison member from the Advisory Council and to write Mr. Jerry Keeter, Associate Director of Education, South Carolina ETV.

It was agreed that the next meeting would be held August 6 at 2 p.m. At that time, the three project consultants, Dr. Robert Brown, Dr. Carl Shaw and Dr. Dave Tribble, will be invited to meet with the Committee.

Mrs. Jordan reported that she had received a call from Mr. Henry Pettit, Carolina Ambulance Service, offering assistance to the project. She asked the advice of the Steering Committee in replying to his offer. It was agreed to invite Mr. Pettit to meet with the Committee and to thank him for his offer of assistance. Mr. Earl Mitchell stated that he would find out if Mr. Pettit plans to charge the Committee for consultation before the invitation is extended.

Dr. Johnson asked for a report on the training films to be borrowed from Florida. Mr. Littlejohn reported that he had talked with Mr. David Eubanks, Miami Dade Jr. College - Department of Allied Health. Mr. Eubanks said all training aids for the four EMT courses to be taught at Miami Dade this fall are currently under review and that the curriculum is being rewritten. Mr. Eubanks will send us a revised version of the curriculum, along with an itemized list of training aids, as soon as it is available. No estimated arrival date of the materials was given.

There was a quick review of the steps to be accomplished prior to the conduct of the first class in September. These included: 1) test development; 2) pre-enrollment profile development; 3) faculty and teaching assistants selection; 4) organization of regional advisory committees; and 5) ordering of books and equipment. Items 1 and 2 will be discussed at length on August 6; Mrs. Snipes suggested that each member of the Steering Committee assist Miss Latimer with accomplishment of Item 3 by supplying her with names of any known qualified instructors; Mr. Littlejohn agreed to assist in developing more detailed specifications for equipment to be ordered since the descriptions in the instructor's guide are not sufficiently clear.

The meeting adjourned at 3:30 p.m.

south carolina hospital association

MINUTES

EMT Project

Inter-Agency Steering Committee

Board Room

South Carolina Hospital Association

August 6, 1971

Present

Mary Snipes
Earl Mitchell, Jr.
Ernest Littlejohn
Libby Alford
Carol Latimer
E. H. Jones

Absent

Mr. John Austell
Dr. Cecil H. Johnson, Jr.
Mary Jordan
Dr. Jack Mullins

Also Present

Dr. Carl Shaw
Dr. Brown
Mr. Art Bushouse
Jan Ussey
Jerry Keeter

The meeting was called to order by Mr. W. H. Jones at 2 p.m. on August 6, 1971.

A progress report was given by Miss Carol Latimer on District # 2 which includes Abbeville, Edgefield, Greenwood, Laurens, McCormick and Saluda Counties. A list containing the names of the Chairman and members of the Steering Committee for District # 2 was given to all those present. She reported that in addition to those listed on the sheet, Mr. Bill Crisp would also be assisting. Thirty-two people have enrolled for the course. All those presently enrolled are ambulance attendants. No rescue squads had registered at the time of registration but have since called and there is a possibility that up to 50 members of rescue squads will want to enroll in the course. Miss Latimer said the program is to begin either on the 13th or 14th of September and it is anticipated that it will be held two nights a week for 13 consecutive weeks.

Possibilities were discussed for additional instructors (Red Cross, physicians, persons who have already completed similiar courses, etc.)

The purchase of training aids was briefly discussed with the possibility of purchasing enough to use in each of the ten districts simultaneously. Mr. Earl Mitchell is to check on some equipment that may be available and advise Miss Latimer.

Dr. Shaw gave a brief report on progress of completion of test that he is composing. It is to follow the basic outline:
Test I - Terminology and Anatomy, Part II - Implication, Part III - Procedures and Part IV - Practical Exam
Dr. Shaw pointed out that the EMT workbook manual was on the reading level of 10th and 11th grade and that possibly some of the persons taking the course would not be able to read or write at all or at least not on this level. This brought up for discussion the guidelines for people taking the course. It was decided that all persons would be able to take the course but they must be able to read and write to a degree because they would be filling out accident reports, etc., in their work.

Also, persons failing the course would be able to take the test over again at their local district Health Department.

Dr. Shaw informed the committee that the first version of the pre-test will be ready by the 27th of August.

Mr. Jerry Keeter gave a brief report on ETV progress for the project. He introduced Mrs. Jan Ussey who will be assisting Dave Smalley. Mr. Smalley has been assigned to the project as production director. The target date for ETV involvement is early November.

The next Steering Committee Meeting will be held September 20, 1971 at 2 p.m.

The meeting was adjourned at 4:30 p.m.

MINUTES

EMT Project

Inter-Agency Steering Committee

Board Room

South Carolina Hospital Association

September 20, 1971

Present:

Mrs. Libby Alford
Dr. Robert Brown
Mr. Ernest Littlejohn
Dr. F. C. Clemenz
Mr. John Austell
Miss Carol Latimer
Mrs. Mary Snipes

Absent:

Mr. Jerry Keeter
Dr. Cecil Johnson-Chmn.
Mr. Arthur Bushouse
Mr. Earl Mitchell
Mr. E. H. Jones
Dr. Jack Mullins

Mrs. Libby Alford was elected to serve as Chairman in the absence of Dr. Cecil Johnson.

Mrs. Alford asked Dr. Brown to report on the results of the test for the class in Greenwood (District 2). He passed out a comparative data sheet for the Greenwood class and the Carolina Ambulance Service. Dr. Brown reported that two-thirds of the class should be able to complete and pass the course.

Dr. Fred Clemenz was introduced as the Medical Consultant for the Emergency Medical Training Project.

Miss Carol Latimer brought the committee up to date on the ETV taping. She reported that two of the tapes had been completed. They are the lessons on the Mechanics of Respiration and Larengectomee. Miss Latimer also reported that the CPR tapes are being updated by Dr. Ambrose Hampton. Mr. Douglas McKay is to tape the Medical Legal Problem portion.

Miss Latimer informed the committee that the Charleston class begins on October 4, on Monday and Wednesday nights from 7 to 10:00 p.m. Mrs.Rosemary Meyer is to be the Nurse Coordinator and Dr. Van Grubbs, the teacher assistant. Miss Latimer also advised the committee that a workshop was held on September 9 for the nurse coordinators and teacher assistants from District # 2 and District # 9.

Miss Latimer reported that the course would be held in District # 7 next (Chesterfield, Darlington, Dillon, Florence, Marion and Marlboro Counties). Mr. David Askins, Administrator of the Marion County Hospital, has volunteered the Hospital's services for the course. Miss Latimer also stated that independent courses were being started in Florence, Cheraw, Chesterfield and Conway.

It was also brought to the attention of the committee that our course now had to be approved by the State Board of Health.

The next meeting is scheduled for October 19, 1971 at 2 p.m.

MINUTES

EMT PROJECT

October 19, 1971

Present:	Absent:
Miss Carol Latimer	Dr. E. H. Jones
Mrs. Libby Alford	Dr. Cecil Johnson
Mr. Sandy duHays	Dr. Robert Brown
Mr. Ernest Littlejohn	Mr. John Austell
Mr. Earl Mitchell	Mr. Art Bushouse
Mrs. Mary Snipes - Acting Chairman	

Mrs. Mary Snipes was elected to serve as chairman in the absence of Dr. Johnson. Mr. Alexander duHays was introduced as a new member of the Committee. The Heart Association is to send us a letter authorizing the use of their name in conjunction with the EMT course.

Mr. Earl Mitchell informed the committee that the Health Department was certifying ambulance attendents having only one first aid course. He explained that so many ambulance and rescue personnel were concerned that they would be put out of business by the new ambulance bill that this seemed the only way at present to prevent most of the counties from exempting and jeopardizing highway funds. Mr. Mitchell informed the committee that to become EMT's, both courses would have to be passed. It was also brought to the attention of the committee that applicants could be certified by passing the National Registry Examination. The first exam is to be held on October 29 and 30, 1971 at the State Board Merit System, South Main Street, Columbia, South Carolina. They are expecting 30 to 40 people for the test. It is a two-part test consisting of written and pratical.

Mr. Mitchell explained that many rescue personnel were resigning as they would have to take time away from their regular jobs to attend this course and that they were either unwilling or could not afford to do this. It was discussed who they could get to be on the committee to give representation and to help build interest within the SCARS organization. It was suggested that Mr. Bill Baskins from Bishopville would be an asset to the committee as he is influential in the SCARS.

Mrs. Libby Alford brought up for discussion the possibility of the Health Department issuing wallet size certificates as well as the standard certificate so that people completing the course could be identified. Mr. Littlejohn felt that it would be impossible to do this at present due to a shortage of personnel.

Mr. duHays discussed the possibility of allowing some people who had had advanced training exempt part of the course. He thought this would take some of the pressure off people who felt that it would be a repeat of what they had already learned.

Miss Carol Latimer brought the committe up to date on the progress of the courses now in progress. She informed the committee that Charleston had requested a second course to train more of their personnel if possible. She told the committee that although many had scored poorly on the evaluation test in the Greenwood area, they had done exceptionally well on the first test.

Miss Latimer announced the beginning of a course at the Marion-Mullins Voc. Ed. Center on the 25th of October. Mrs. Anna Speth is the nurse coordinator and Mr. Joe Boatwright has been secured as teacher assistant for this course. She informed the committee that she is now working in the York area with October 26th set for registration in this district and the tentative beginning date for class, the 15th of November.

The next class will be at Spartanburg, combining live and ETV classes. Miss Latimer informed the committee that we would not have the ETV tapes completed by the end of November due to scheduling conflicts.

Mrs. Alford told the committee that various groups were interested in the use of the ETV tapes and that we were checking with NIH concerning the rights to the tapes.

Miss Latimer informed the committee that the first course (Greenwood) would be complete on December 8th, and that a passing mark for the course would have to be decided upon before this date.

Friday, November 9, 1971, at 2:00 p.m. was set as the date for the next meeting.

The meeting was adjourned at 4:00 p.m.

MINUTES

EMT PROJECT

November 19, 1971

Present

Dr. Cecil Johnson - Chairman
Miss Carol Latimer
Mrs. Mary Snipes
Mrs. Libby Alford
Mr. Alexander duHays
Dr. Fred Clemenz
Mr. John Austell
Dr. Jack Mullins
Mr. Ernest Littlejohn
Mr. Jerry Keeter

Absent

Dr. E. H. Jones
Dr. Robert Brown
Mr. Earl Mitchell

The meeting was called to order at 2:00 by Dr. Cecil Johnson, Chairman.

A guideline to be used as a passing score for the written portion of the test was discussed. It was decided that 65% would be acceptable provided this met with Dr. Brown's approval. The passing score for performance evaluation was one half of the rating on a scale giving one point for satisfactory performance and two points for superior. Concern was expressed on guidelines to be used by independent courses.

Miss Latimer brought the committee up to date on the rights of the taped portions of the lesson as described by NIH. She told the committee that we could let other groups have them as long as they were used in this state only. The tapes would still belong to NIH.

It was decided that the committee should have representation from hospitals, police, fire departments, commercial ambulance services and rescue squads. Mrs. Alford and Miss Latimer agreed to work on a list of names to be submitted at the committee meeting so that new members could be chosen. It was also decided that Mr. Cuttino should be invited to attend the next steering committee so that he might be brought up to date on the progress of the course.

Mr. John Solomon, Associate Director of Finance, for the South Carolina Hospital Association was introduced. He brought the committee up to date on the changes in the budget that had been requested. He also informed the committee that permission had been obtained to sell the extra books that would not be needed for the course.

Miss Latimer brought the committee current on the progress of the courses that are now under way. She reported that all the courses were going very well. She informed the committee that approval of our Marion course would be held for a month due to a slight misunderstanding between instructors for the course.

Miss Latimer reported that the course being held at the Rock Hill Tec Center began on the 16th of November and that the Spartanburg course would begin the week of December 6th with registration set for November 22nd. Dr. Hull is chairman of the committee for this district and the nurse assistant is Mrs. Gladys Hudgens. The teacher assistant is Mr. Dewitt Woodward. Miss Latimer told the committee that this would be the first course using ETV and live instruction. The ETV tapes should be completed by the end of December.

The next course is to be held in Orangeburg at the Tec Center there. Miss Latimer told the committee that she had appointments set up for this week to discuss the course.

Miss Latimer asked the committee to decide the priority for the remaining courses. It was decided that the courses should be held in the following order: Georgetown, Columbia and Sumter.

The meeting was adjourned at 3:15 p.m.

south carolina hospital association

MINUTES

EMT PROJECT

December 16, 1971

Present

Mr. Jerry Keeter
Mr. Ernest Littlejohn
Mr. Alexander duHays
Mrs. Libby Alford
Miss Carol Latimer
Mr. Earl Mitchell

Absent

Dr. E. H. Jones
Dr. Robert Brown
Dr. Cecil Johnson
Mrs. Mary Snipes
Dr. Fred Clemenz
Mr. John Austell
Dr. Jack Mullins

Also Present

Mr. John Bacharz
Mr. John Motley
Mr. Billy Hicks

The meeting was called to order at 3:00 p.m. by Miss Carol Latimer, who presided in the absence of Dr. Cecil Johnson, chairman.

Mr. John Barcharz, the EMT project officer, NIH, DHEW, was introduced as was Mr. John Motley, who is with the Department of Transportation. Everyone present was asked to introduce themselves.

Enlargement of the steering committee was discussed. Mr. William Baskins has been asked to join the committee and he has agreed. He will represent the rescue squads throughout the state. Mr. Henry Petit is to be asked to join the committee to represent a professional ambulance service. Mrs. I.M. Harley is to be asked to join to give representation from a commercial ambulance service. Mr. J. C. Munn or someone from the Sumter area will be asked to represent the hospital ambulance services. Rep. Grant or Cuttino will be asked to sit in on meetings from time to time so that they might be brought current on the progress of the courses. Mr. Earl Mitchell also brought up the possibility of having Rep. Waddell sit in on meetings from time to time to represent his area of South Carolina.

Miss Latimer distributed sheets showing additional requirements to be followed to receive approval for the EMT course by the South Carolina Health Department.

Miss Latimer informed the committee that the first class (Greenwood) would be graduating on December 20 and that everyone was invited to attend. Miss Latimer commended Mrs. Ek, nurse coordinator and Mr. Bill Crisp, teacher assistant on the the excellent job they had done. The pretest scores for this class were very low but final test scores were high. The average was 89.7 and performance was above average. Sen. John Drummond is to speak to the graduation class and Mr. Nisbet, administrator of Self Memorial Hospital will present the welcoming address.

Miss Latimer reported that both Vocational Education and Technical Education in the Greenwood area had expressed an interest in offering a follow-up course. Discussion was held to decide which agency should hold the follow up course in this area. It was the feeling of the committee that Voc. Ed. should since they had assisted in the pilot course. Concern was expressed as to qualifications of instructors for follow-up courses, etc. Mrs. Libby Alford made a motion that the steering committee recommend to the State EMS Advisory Council that they be aware of the situation, set some guidelines for the sponsorship, staffing, size and location of the followup courses. Mr. Alexander duHays, liaison to the EMS Advisory Council agreed to transmit the recommendation. It was suggested that someone completing our pilot course and doing exceptionally well could be an instructor for the followup courses with the aid of the tapes.

Miss Latimer advised the committee that 31 tapes were completed at this time. She thanked Mr. Jerry Keeter for the assistance of ETV in coordinating the tapings. These tapes are already being used in Spartanburg. Mr. Sandy duHays is trying to get lesson number 3 and 5B on tape also. He thinks this can be paid for through the Heart Association and the company supplying the equipment being used. These tapes would last for about an hour. Mr. Keeter quoted him a price of $300 to $500 as cost for tapes, production, etc. Mr. Keeter said that he would like to see the tapes used on a statewide basis with a talkback system. With this type set up, at least 20 classes could be conducted at one time.

Miss Latimer advised the comittee that registration for the course in Orangeburg area would be on January 5th with the course beginning on or around January 12, 1972, depending upon the nights most suitable to people taking the course. The nurse coordinator for this course will be Claudia Zeigler and the teacher assistants will be Fred and Charles McCurdy who will be alternating.

The committee decided to go to the Columbia area for the next course.

The meeting was adjourned at 4:00 p.m. with the next meeting set for January 21, 1972 at 2:00 p.m.

MINUTES

EMT PROJECT

January 21, 1972

Present

Mr. J. C. Munn
Mr. Ernest Littlejohn
Mrs. Mary Snipes
Ms. Bobbi Kennedy
Mr. John Ballington
Mrs. Libby Alford
Miss Carol Latimer

Absent

Dr. Robert Brown
Dr. E. H. Jones
Mr. Earl Mitchell
Mr. Jerry Keeter
Dr. Cecil Johnson
Mr. John Austell

The meeting was called to order at 2:00 p.m. on January 21 by Mrs. Mary Snipes who served in the absence of Dr. Cecil Johnson as chairman. Dr. Johnson is attending a seminar at Ohio University.

Mr. J. C. Munn was introduced as a new member of the steering committee. He is also the teacher assistant for the EMT course being held at York County Tech. Center in Rock Hill, South Carolina.

Mr. John Ballington is representing Mr. John Austell of Midlands Technical Center. Carol Latimer informed the committee that Mr. Stanley Smith, Jr. had been contacted about having state representation for Vocational Education on the steering committee.

Mr. Wayne Vestal was recommended by Miss Latimer as the coordinator for the Columbia EMT course instead of using a nurse coordinator. She asked the committee if there were any objections to employing Mr. Vestal as he was a certified EMT instructor by the Dunlap and Associates course and was now serving in the capacity of teacher assistant in Orangeburg. Miss Latimer asked Mr. Littlejohn of the State Board of Health if he thought there would be any problems getting the course approved if Mr. Vestal was used as the coordinator and Mr. Littlejohn stated that this was acceptable as long as the course meets approval from other aspects. Mr. Littlejohn made a motion that Mr. Vestal be asked to be the coordintor. Motion was carried.

Miss Latimer informed the committee that Lexington County personnel had some objection to the location of the course as they considered it too far to travel. Mrs. Snipes and Miss Latimer are to look at several locations before deciding on a definite location for the course, with the thought in mind that personnel would be coming from other counties as well as the Lexington County area and the room would have to be large enough to accomodate around 60 pupils.

Miss Latimer informed the committee that the Charleston course would be complete at the end of the month and it was a possibility that three people would not pass. She asked the committee to come to a decision about retesting pupils. It was decided that anyone failing the course (live courses) would have one more chance to take the written test again at the end of all live courses and the same would be true for ETV course. Those failing the performance portion would not be able to take the test again but would have to take the course over. It was also decided that coordinators or teacher assistants could give students oral tests if there was a great problem with reading and writing. The retesting is to be done on a centralized basis with the first retesting to be around the end of March.

Spartanburg is on lesson eight with the use of video tapes but we don't have the results of the first test yet from Dr. Brown. The tapes are being well received. Also Miss Latimer told the committee that the material was being covered faster with the use of video tapes leaving more time for discussion.

Mr. Munn gave a brief report on the Rock Hill course. He reported that getting equipment on time was somewhat a problem as is the case with other courses as we are using the same equipment for all courses. He also reported that 50% of the students have already finished the in-hospital training. Miss Latimer asked the committee if there was any objection to students getting their in-hospital training before lesson 16 in Rock Hill. No one objected.

Miss Latimer reported to the committee that a standard form will be used by the Emergency Rooms for the in-hospital portion of the training stating that these students have completed the ten hour course. This form was developed by Mrs. Anna Speth, the Nurse Coordinator for the Marion Course and will be used on a statewide basis.

The committee was brought up to date on the District 5 course. This course began on January 17, 1972 . The nurse coordinator is Miss Claudia Zeigler and the teacher assistants are Mr. Wayne Vestal and Mr. Fred McCurdy. Miss Latimer informed the committee that the class was having some problem with attendance and that she would attend the class meeting this Wednesday night, January 26.

Miss Latimer reported to the committee that the nurse coordinators for the Kingstree course would be Judy Purcell and Sandra Harrington, and the teacher assistant would be Robert Sullivan, who is completing the EMT course on March 8 in Marion. Also we will accept people from Johnsonville and Lake City for this course as space permits. Registration is set for Friday, January 28 and the course will be held at the Manpower Center in Kingstree. The steering committee will meet on Monday, January 31, at 3:30 p.m. February 2 is set for the teacher workshop for instruction of video tape equipment.

Miss Latimer informed the committee that most of the video tapes were completed and that we had good cooperation from ETV. All tapes should be completed by February 16. Bobbi Kennedy offered facilities at ETV for the testing of students if needed.

The meeting was adjourned at 3:15 p.m. with the next meeting scheduled for February 23 at 2:00 p.m.

MINUTES

EMT PROJECT

February 23, 1972

Present:	Absent:
Mr. Wayne Vestal	Dr. E. H. Jones
Mrs. Mary Snipes	Dr. Cecil Johnson
Mr. Ernest Littlejohn	Mr. John Austell
Dr. Robert Brown	Dr. Wayne Scott
Mr. Alexander duHays	Mrs. Libby Alford
Mr. J. C. Munn	Mr. Jerry Keeter
Dr. F. W. Clemenz	Mr. Earl Mitchell
Miss Carol Latimer	

The meeting was called to order at 2:10 p.m., Wednesday, February 23, 1972, by Mrs. Mary Snipes who served in the absence of Dr. Cecil Johnson as chairman. Mrs. Snipes made a recommendation that Dr. Wayne Scott be made co-chairman of the committee in the absence of Dr. Cecil Johnson. Dr. Scott was elected. Mr. Wayne Vestal of Carolina Ambulance Service was introduced as a new member of the Steering Committee. Mr. Vestal is the coordinator for the Columbia EMT course and teacher assistant for the Orangeburg course. Mr. J. C. Munn of York County Hospital Ambulance Service was again introduced to the steering committee for the benefit of those who were not at the last meeting. He is the teacher assistant for the Rock Hill EMT course.

Dr. Brown gave a brief explanation of test scores from the Greenwood, Cheraw, Charleston and Marion classes as follows:

	Greenwood	Cheraw	Charleston	Marion
Enrolled	46	48	57	36
% Completing	89	83	74	72
M. Test Score	158	153	149	150
M. Perf. Score	73	80	75	81
# Failing	0	2	4	0
R. Bet. Score	.25	.67	.51	.54

Result of first Test for Four Classes

	Mean Live Courses	Video Tape
1st. test	154	42
19	90%	79%
16	95%	86%
13	100%	93%

Mr. duHays told the committee that he had talked with Miss Zeigler in Orangeburg and she felt the tapes tended to be too professional or above the level of students. There is no interaction relationship between ETV instructors and the class as there is with live instruction. Physicians, when speaking, will stay and explain to the students anything they don't understand whereas when the tape is over, it may be hard for the student and instructor to work together.

Dr. Brown explained that we have two types of students, those who learned the terminology through school and those who learned through experience. The experienced person will get a better grade on the pre-test, but those with a higher education who leared terminology through school will soon pass the experienced student.

Miss Latimer reported to the committee that Dr. Clemenz was in the process of reviewing the tapes at this time to suggest any changes that might need to be made to assist the students.

Class graduation was held Saturday night for the Charleston class. Dr. Curtis Artz was the speaker. Charleston Tec is now in the process of running a survey to determine if there is enough need in the area to hold another class.

Miss Latimer reported that Rock Hill test scores as a group seem to be running higher than previous classes. This class will be completed March 2. Kingstree has not had a test yet but seems to be a highly motivated class. Columbia had their pre-test on February 22. Miss Latimer told the committee that she would begin work in the Beaufort area the next day to get a class scheduled for this area. She asked for any recommendations from the committee for teacher assistants and coordinators for the class as well as the one to be held in the Sumter area. Mr. duHays recommended contacting the Naval Hospital for assistance in finding a nurse coordinator for the Beaufort class.

Miss Latimer told the committee that in the Columbia course, in-hospital training was being handled in a different manner by the local steering committee. Since personnel would be working more than one hospital, it was decided by the committee that 8 hours would be at Richland County Memorial Hospital, 2 hours at Baptist and 2 hours at Lexingoton County Hospital. Persons from Fairfield would be training for 8 hours in Fairfield and 4 hours in Columbia.

Mr. Munn brought up the possibility of getting arm bands or patches to identify persons with EMT training. Mr. Littlejohn reported that the State Health Department is working on a patch at this time to use. Mr. Munn was concerned because of the interference from people at scene of an accident, etc., so that ambulance personnel could not reach the victim and also because of lack of cooperation from Highway Patrol personnel. Concern was expressed at the meeting over the lack of training for Highway Patrolmen. It was the general feeling of the committee that since patrolmen were usually the first to arrive at the scene of an accident, they should at least have some basic training and be able to recognize the seriousness, etc., of the patient's condition.

Mr. Vestal reported that a local ordinance can be obtained requiring people not to interfere with an emergency vehicle or their services.

The next meeting will be held Wednesday, March 22, 1972 at 2:00 p.m.

MINUTES

EMT INTERAGENCY STEERING COMMITTEE

Present

Dr. Wayne Scott, Co-Chairman
Mr. J. C. Munn
Mr. John Austell
Mr. Wayne Vestal
Mrs. Libby Alford
Mrs. Mary Snipes
Miss Carol Latimer
Mr. Ernest Littlejohn

Absent

Mr. Alexander duHays
Mr. Jerry Keeter
Dr. Cecil Johnson

The meeting was called to order at 2:00 p.m. on March 22,1972. Dr. Scott asked for approval of last month's minutes. These were then approved.

Miss Latimer reported that all of the live courses were now complete and that Rock Hill had their graduation on March 20, 1972. Dr. Emmett Lunceford addressed the graduates of this course. She reported that Rock Hill had the lowest drop out rate of all the courses.

She also reported that Spartanburg, the first combined course using tape and live instruction was completed. Classes under way at present are Kingstree, Orangeburg, Beaufort, and Columbia . Miss Latimer reported that both Orangeburg and Kingstree had scored well on previous test.

Mr. Vestal discussed the Columbia course, stating that on a whole, this class had a higher level person taking the course resulting from experienced personnel in the class.

Dr. Scott asked who had the tape available for other state agencies to use. Miss Latimer pointed out that the course tapes were available for use until the end of the project in June and at that time they would be the property of NIH. Mr. Littlejohn explained that at this time they were trying to get funds together to purchase a set of tapes but had not been able to do so yet and also were investigating other possibilities.

Dr. Scott suggested that a one page proposal be prepared to submit for portions of funds from schools who wished to use the tapes. Mrs. Alford pointed out that there was substantial interest in continuing this program at present.

Miss Latimer pointed out that various agencies had permission to use our test at this time. She questioned who should control the test at present, i.e., on a state level or local level. The committee felt that this should be done on a state level. More control could be maintained over the test. Mr. Austell suggested that Dr. Scott be in control of the testing system. This was agreed upon. Miss Latimer is to notify the Tech. Centers that Dr. Scott will be in charge of the test.

Miss Latimer informed the committee that Captain Waters of the Jacksonville Ambulance Service and Fire Department will be addressing the Spartanburg graduates on April 6, at 7:00 p.m. and that the committee was invited. Dr. Scott suggested taping Captain Waters presentation to use at a future date. Miss Latimer reported that Orangeburg will be complete in about three weeks and Columbia in about six weeks.

Dr. Scott recommended inviting representatives from Technical and Vocational Education Centers to the next meeting. The committee decided to continue as an advisory group to the Schools after the completion of the present EMT course being sponsored by the S. C. Hospital Association.

MINUTES

EMT STATEWIDE STEERING COMMITTEE MEETING

April 19,1972

Present:

Dr. Wayne Scott, Co-chairman
Mr. J. C. Munn
Mr. John Austell
Mr. Ernest Littlejohn
Miss Carol Latimer
Mr. Wayne Vestal

Absent:

Mrs. Mary Snipes
Mrs. Libby Alford
Dr. Robert Brown
Mr. Sandy duHays
Mr. Jerry Keeter
Dr. Cecil Johnson
Mr. Earl Mitchell

Also Present:

Mr. Jake Salley

Dr. Wayne Scott called the meeting to order at 2:00 p.m. on April 19, 1972.

Miss Latimer reported that we have permission from the project officer to use funds from NIH Project Number 71-4163 to reproduce ten sets of EMT tapes (five sets on the new 1/2 inch format and five sets on the Sony 1/2 inch format to be used within the State of South Carolina for continuing EMT training) and requested the committee to establish a method of controlling these tapes.

Miss Latimer suggested that the committee have custody of the tapes and it was decided by the committee that a library-type method be established and handled through the Department of Education for the use of Technical and Vocational Education Centers and Hospitals.

Miss Latimer reported that Orangeburg has completed their course and will have graduation on May 1, 1972. There were five failures in this class. Spartanburg had graduation last month and Captain Waters of the Jacksonville, Florida Fire Department was the speaker. They are nationally recognized as having one of the best trained EMT sources in the nation. Miss Latimer reported that the remaining courses were progressing satisfactorily. There will be a retesting date available to those persons not satisfactorily completing the remaining courses on June 21, 1972.

Dr. Scott suggested that the committee come up with some type of program plan for the first year and the methodology for obtaining the objectives. Miss Latimer suggested that we get recommendations from our instructors and plan an approach as well as establish a criteria for the program. She stated that upon completion of the ten courses a coordinator evaluation seminar would be held. Dr. Scott suggested that Miss Latimer create a format for obtaining additional funds for EMT training. Miss Latimer suggested forming a sub-committee. This was voted upon and accepted. Mr. Wayne Vestal, Mr. Littlejohn and Miss Latimer will work on this as a sub-committee and have something to present to the next meeting for discussion.

Miss Latimer told the committee that Mr. duHays suggested there be a limitation on the charge of the course and it should be consistent. Dr. Scott suggested that the committee come up with a set charge for the course. Mr. Jake Silay suggested a class of no more than 40 persons. There would also be a need to set guidelines for the salary of instructors. The committee decided that at least four sets of equipment would be needed for the courses at Tech. and Voc. Ed. Centers.

Mr. Silay was recommended as a member of the committee by Dr. Wayne Scott and Mr. Larry Dozier of Spartanburg General Hospital was recommended by Miss Latimer. This was voted and agreed upon.

The meeting was adjourned at 2:50 p.m.

MINUTES

EMERGENCY MEDICAL TECHNICIANS PROJECT

COMMITTEE MEETING

The meeting was called to order at 2:00 p.m. on May 17, 1972 by Dr. Wayne Scott, co-chairman of the committee. The Precis Outline was reviewed. Dr. Scott pointed out that a need to show how the committee is going to provide the objectives should be in the outline.

Obtaining instructors was discussed and also the orientation of instructors. Miss Latimer discussed putting on four workshops throughout the state (Greenville, Florence, Columbia and Charleston) and using as many as possible of the instructors for the basic EMT training. Mr. Littlejohn discussed obtaining money for the course to continue in the state as well as money for instructors and equipment cost. It was decided that a breakdown of cost was needed. Miss Latimer pointed out that two CPR manikins was not enough for the course as they would not last through continuous use and there should be one manikin for each ten students. Miss Latimer also reported that ETV was developing a tape on the use of video tape instruction in the classroom which could be included in the EMT packet. It was also suggested that the test be put on tape which would give better control over the test as well as regulate time for giving the test. The committee decided that the Precis Outline methodology should be rewritten to include (1) how to acomplish cost (resources), (2) need a statement on amount of money it will cost with all objectives for one full year.

Miss Latimer reported that through lesson 14 was already available on the ten sets of tapes being produced by ETV for use throughout the state for instruction on Basic EMT training. All tapes will be ready in 4 to 6 weeks. She reported that the tape on electrical hazards was being done over. She reported that Charleston Technical Education Center was sponsoring a course at present and had 39 pupils enrolled. They are using our test, tapes, etc. She pointed out that the courses would increase in the state as interest was shown through factories, police, fire personnel, etc.

Dr. Brown gave a summary on the testing system used for EMT training. He pointed out that his organization's primary role was to evaluate the effectiveness of definite training methods and validate testing procedures and the possibility of retesting students. He pointed out that 100 items were on the pre and post test given students and 85 of the test items were validated.

Comparing the live and taped courses, scores run closely to the same of the persons enrolled in just live courses. Five percent failed to score the 65 percent set. An item analysis suggests that we have approximately 100 test items that are stable enough to use. Test four contains 14 items not to be used. Test one and two have 13 items that are not good. Test three has 9 out of 30 that are good. He pointed out that those who failed were the individuals who showed very little aptitude to start with. Dr. Brown reported that it is obvious that we can predict with a fairly high degree of accuracy what the score will be on the final test. This could be utlized as a screening technique to keep cost down on training. Familiarity with terminology seem to be one big factor. He asked if there was a tape dealing with just terminology, as this would be of great assistance to students. He suggested the possibility of using open-end questions.

Mrs. Libby Alford briefly discussed the letter of intent for the feasibility study for advanced emergency medical technician training. She pointed out that this was a three month project and if it was determined there was a need for advanced training, it was hoped that funding would be available as of September. She reported that Mr. John Greer would be assisting with the project.

Miss Latimer asked all members of the present committee to serve on the Advisory Council for the feasibility study. They are to meet June 6, 1972 at Richland Memorial Hospital at 7:30 p.m.

The meeting was adjourned at 3:40 p.m.

south carolina hospital association

Minutes
Emergency Medical Technician Steering Committee

The meeting was called to order at 2:00 p.m. on June 28, 1972, by Mr. Jake Salley in the absence of Dr. Wayne Scott. Mr. Salley pointed out that the EMT Project funded by National Institute of Health Contract Number 71-4163 was to end on June 29, 1972. This committee will continue to meet at the Hospital Association and will serve in an advisory capacity for educational institutions picking up the course at this point.

Dr. Brown discussed his role in the EMT course. He stated that he was to evaluate the use of video tape for instruction. Two factors involved in this evaluation was competency of live instructors and the quality of tapes produced by South Carolina Hospital Association and South Carolina Educational Television. It was concluded by Dr. Brown that tapes were as effective as the live instruction.

Upon completion of this report, Dr. Brown suggested that the score of 70 to 75 be used as the cut-off point instead of 65. This was discussed and the committee voted to use 75 as the new cut-off point. Preselection was discussed as a means to minimize failure rate but the committee decided it would be in the best interest of the course to allow anyone wishing to take the course to do so and by using 75 as the cut-off score, eliminate themselves.

Mr. Littlejohn of the State Board of Health told the committee that once a Vocational or Technical Education school received approval to hold a class, they would not have to be approved for each subsequent class using the same instructors, etc. Mr. Littlejohn stated he would be glad to furnish anyone wishing to hold a course the information that must be furnished the State Board of Health for approval of the course. He also stated that only persons completing an EMT instructors course would be qualified to teach the course. He reported that coordinators courses will be offered in four different locations throughout the State. These workshops will last for four days each. The first one will be held on July 18, 1972. The CPR portion of the workshop will be conducted by Mr. Alexander duHays of the Heart Association. Mr. Littlejohn told the committee that the Board of Health will have five sets of equipment to be used with the course available for use by the Vocational and Technical Education Schools.

Miss Latimer reported to the committee that ETV has scheduled the 100 test items to be taped Friday, June 29, 1972. Ten sets of tapes will be turned over to Dr. Wayne Scott. These sets will also include a short tape for coordinators of the various courses. Two different formats will be available so that all schools will be able to use the tapes with their present equipment. Miss Latimer reported that at the present time Charleston Tech and Tri-Tech in Pendleton, as well as Carolina Ambulance Service in Aiken, South Carolina were using the tapes.

The meeting was adjourned at 4:45 p.m. with the next meeting scheduled for July 26, 1972.

p.o. box 1005 · 101 medical circle · west columbia, s.c. 29169 · (803) 796-3080

APPENDIX C

SURVEY QUESTIONNAIRE

Appendix C

QUESTIONNAIRE

NAME____

ADDRESS____
Street City Zip Code

____
Number of Employees Radius of Service

Please list functions of employees________________________

____

____

____

Number of employees who have completed basic American Red Cross Training______

Number of employees who have completed advanced American Red Cross Training______

Would you care to enroll your employees in this program?________________

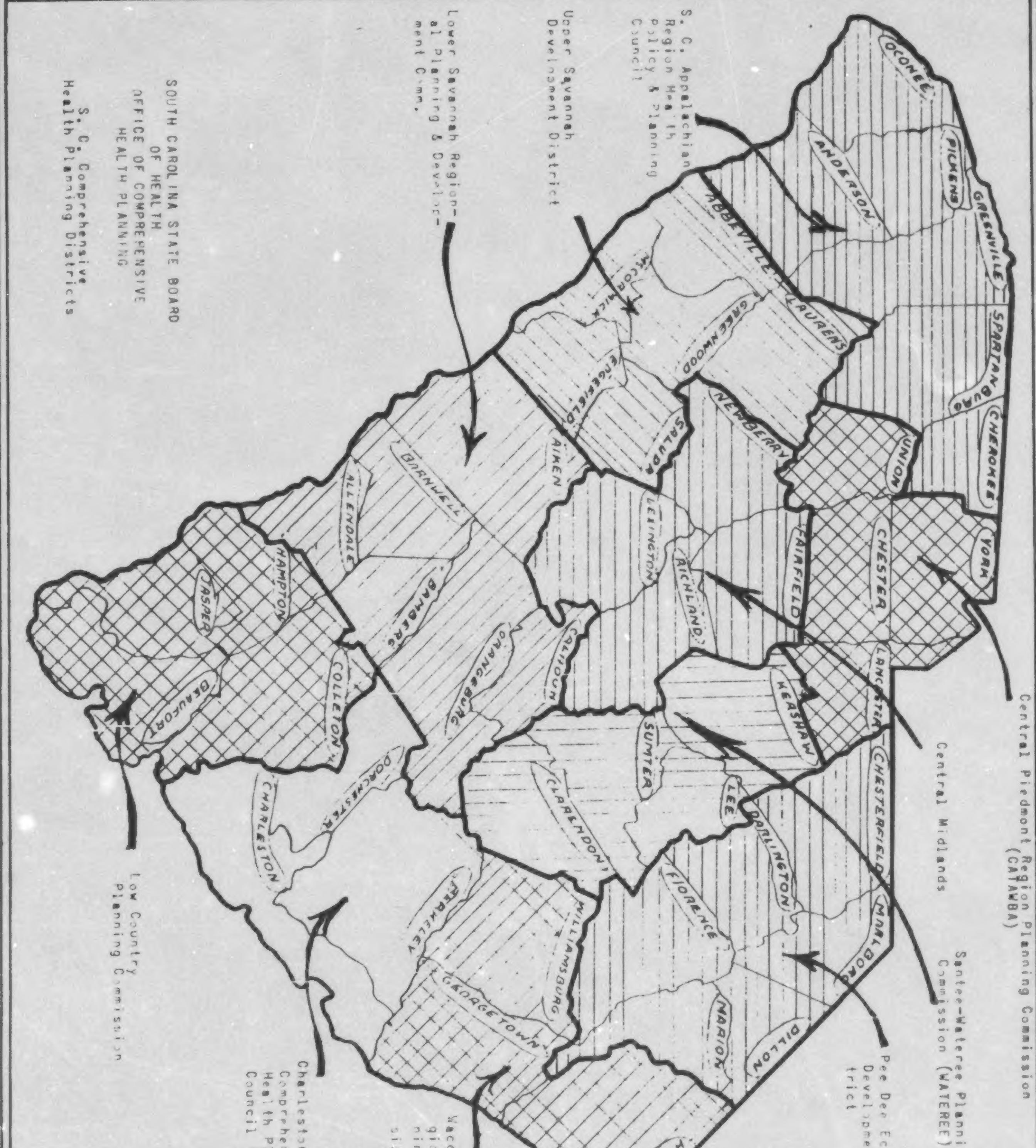
Please complete and return as soon as possible to:

Mrs. Mary S. Snipes, Consultant
Health Occupations Education
903 Rutledge Office Building
Columbia, South Carolina 29201

APPENDIX D

MAP OF 10 COMPREHENSIVE HEALTH PLANNING DISTRICTS IN SOUTH CAROLINA

Appendix D


Central Piedmont Region Planning Commission (CATAWBA)
Central Midlands
Santee-Wateree Planning Commission (WATEREE)
Pee Dee Economic Development District
Waccamaw Regional Planning Commission
Charleston Area Comprehensive Health Planning Council (TRIDENT Area)
Low Country Planning Commission
Lower Savannah Regional Planning & Development Comm.
Upper Savannah Development District
S. C. Appalachian Region Health Policy & Planning Council
OCONEE
PICKENS
ANDERSON
GREENVILLE
SPARTANBURG
CHEROKEE
UNION
YORK
CHESTER
LANCASTER
CHESTERFIELD
MARLBORO
DILLON
MARION
HORRY
ABBEVILLE
LAURENS
McCORMICK
GREENWOOD
NEWBERRY
EDGEFIELD
SALUDA
AIKEN
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LEXINGTON
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KERSHAW
DARLINGTON
LEE
SUMTER
FLORENCE
CALHOUN
CLARENDON
WILLIAMSBURG
GEORGETOWN
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BEAUFORT

SOUTH CAROLINA STATE BOARD
OF HEALTH
OFFICE OF COMPREHENSIVE
HEALTH PLANNING

S. C. Comprehensive
Health Planning Districts

APPENDIX E

LIST OF DISTRICT (AD HOC) EMT STEERING COMMITTEES AND MEETING MINUTES

Steering Committee Members District No. 1 EMT Project
Anderson, Cherokee, Greenville,
Oconee, Pickens, Spartanburg

Miss Carol Latimer, Coordinator, EMT Project

Mrs. Gladys Hudgens, Nurse Coordinator, Spartanburg Technical Education Center

Mr. Don Stevens, Teacher Assistant

Chairman

Dr. D. C. Hull, Chairman - 387 Serpentine Drive, Spartanburg, S. C.

Members

Mrs. Karen Atkins - Spartanburg Technical Education Center
Dr. R. O. Burgess - Spartanburg, S. C. Task Force State Committee on Trauma
Miss Margaret Mitchell - Director of Nursing, Spartanburg General Hospital
Miss Estell McCraw - Civil Defense
Mr. James O. Thomason - Comprehensive Health Planning
Mrs. Joyce Littlefield - Director, Inservice Training, Spartanburg General Hospital
Mr. Zerno Martin - Assistant Administrator, Spartanburg General Hospital
Mr. Robert J. Newton - Executive Director, St. Francis Community Hospital, Greenville
Mr. James R. Binder - Administrator, Hillcrest Hospital
Mr. W. H. Botts - Director of Staff Services, Greenville Hospital System
Mr. Norman Naudau - Rescue Squad, Spartanburg/Greenville Airport
Mr. Don Stevens - Director, Spartanburg Red Cross Chapter
Sen. John D. Long - Member, South Carolina Senate
Sgt. R. T. Pitts - S. C. Highway Department
Mr. John L. Prince - Spartanburg Rescue Squad Association, President
Mr. W. H. Hudson - Administrator, Oconee Memorial Hospital
Mr. Slay Whitfield - Supervisor, Oconee Memorial Hospital Ambulance Service
Mr. D. N. Brown - Brown's Ambulance Service, Spartanburg
Mr. Melvin Hawkins - Norris Ambulance Service, Greenville
Mr. Jack Gregory - Gregory's Ambulance Service, Greenville
Mr. Charles Horton - Funeral Home Director
Mr. Weldon Day - Funeral Home Director
Dr. Richard S. Wilson - State Committee on Trauma, Spartanburg, S. C.
Dr. Samuel H. Huff, Jr. - State Committee on Trauma, Anderson, S. C.
Mr. Eric L. Fischer - Administrator, Cherokee County Hospital

EMT Minutes

District # 1

Present:

Carol Latimer
Gladys Hudgens
Dewitt Woodward
Dr. D. C. Hull - Chairman
Karen Atkins
Estell McCraw
Joyce Littlefield
Zerno Martin
Robert Newton
James Binder
John Prince
Norman Naudau
Don Stevens
W. W. Hudson
D. N. Brown
Melvin Hawkins
Charles Horton
Eric Fisher
Earl Mitchell
Larry Dozier

Absent:

Dr. R. O. Birgess
Margaret Mitchell
James O. Thomason
Hack Botts
John D. Long
R. T. Pitts
Slay Whitfield
Jack Gregory
Weldon Day
Samuel Huff, Jr.
Dr. Richard Wilson

The meeting was called to order at 10:00 a.m. by Dr. D. C. Hull, chairman. Dr. Hull introduced the nurse coordinator, Mrs. Gladys Hudgens and the teacher assistant, Mr. Dewitt Woodward.

Miss Latimer explained the functions of an Emergency Medical Technician and showed the film, "Before the Emergency".

The steering committee decided that the classes would be held Monday and Wednesday from 7 to 10:00 p.m. beginning December 6, 1971, as this would be in the best interest of the students as well as convenient for Spartanburg Tec. Center. Carol Latimer asked the committee to make a decision on the number of students to accept. There were 118 registered for the class and it was decided that 52 would be the maximum number Tec. could accomodate. This was discussed in length and finally at the suggestion of Mr. Larry Dozier, the committee agreed that since ambulance attendents had first priority, we could accept only one representative from each of the eight rescue squads registering and the rest of the spaces would be broken down to ambulance services. The final breakdown as:

Brown Ambulance Service	10	Clark Ambulance Service	1
Johnson's Morgue	5	Norris Ambulance Service	5
Forest Lawn	4	Cherokee County Hospital	15
Greenville-Spartanburg Airport	2	Landrum Rescue Squad	2

Arcadian, North Spartanburg, Hilltop, Inman, Drayton, Westview, Greer, Campbello Rescue Squads would each send one representative. Mr. John Prince, President of the Spartanburg Rescue Squad Association agrees to get the names of those selected to Miss Latimer as soon as possible.

The ambulance bill was discussed and explained by Mr. Earl Mitchell. He emphasized that the EMT certificate deadline was not July 1, 1971, but ambulance attendents certification requiring the standard red cross course would be required by July, 1972. According to Mr. Mitchell a deadline for EMT training is not in the near future.

Mr. Fisher, administrator of Cherokee County Hospital agreed with the suggestion by Miss Latimer that his 15 students should do their ten hours of in-hospital training at the Cherokee County Hospital. Mr. Fisher agreed to send a letter giving permission for this.

Mr. Littlefield from Spartanburg General felt that there would be nurses from ER and coronary care able to assist as lay instructors for the practical portion of the class. Mr. Don Stevens of the American Red Cross also felt that he would be able to assist with volunteer lay instructors. Mr. Stevens also suggested that the committee should meet again to check on the progress of the class and discuss further training. It was agreed that the meeting should be half-way through the course.

The meeting was adjourned at 12:45 p.m. by Dr. Hull.

Steering Committee Members

District # 2

Emergency Medical Technician (EMT) Project

Miss Carol Latimer, R.N., Coordinator, EMT Project

Mrs. Virginia EK,R.N., Regional Nurse Coordinator, Self Memorial Hospital

Mrs. Libby Alford, Associate Director, S. C. Hospital Association

Chairman:

Mr. A. P. Nisbet, Administrator, Self Memorial Hospital

Members:

Mr. Truman Campbell, Chief of Police, Greenwood, South Carolina

Mrs. Dora File, R.N., Director of Nursing, Self Memorial Hospital

Dr. James W. Gilbert, Greenwood Health Department

Mr. Travis Higgenbotham, Greenwood City Manager

Mr. Allan T. Johnson, Jr., Volunteer Fire Chief, Johnston, S.C.

Mr. James Kinard, Captain, Laurens Rescue Squad

Mr. M. G. King, Jr., Captain, Highway Department

Dr. F. C. McLain, Ware Shoals, South Carolina

Mr. Malcom A. Mills, Greenwood Ambulance Service

Dr. E. Mims Mobley, Jr., President, Greenwood Heart Association

Mr. Harry Payne, Secretary, Calhoun Falls Rescue Squad

Mrs. E. O. Rattlehoover, Red Cross Representative

Mr. Jerry Roberts, Administrator, Abbeville County Memorial Hospital

Dr. William G. Roche, Chairman of Emergency Room Committee, Self Memorial Hospital

Mr. Frank Russell, Director of Greenwood County Vocational Education Facilities

Dr. Travis Stevenson, Jr., State Committee on Trauma

Mr. Roy Still, Captain, Greenwood Rescue Squad

Dr. O. L. Thomas, Ninety Six, South Carolina

Chief W. W. Walsh, Greenwood Fire Department

South Carolina Hospital Association

District # 2

Steering Committee Meeting

EMT Project

Present:

Mrs.Dora File, Acting Chairman
Mrs. Virginia Ek
Mr. Bill Crisp
Mr. Travis Higginbotham
Mr. James Kinard
Mrs. E. O. Ridlehuber
Chief N. W. Walsh
Mr. Will May
Dr. James W. Gilbert
Dr. E. Mims Mobley, Jr.

Absent:
Mr. A. P. Nisbet, Chmn.
Dr. Travis Stevenson
Mr. Frank Russell
Mr. Jerry Roberts
Dr. G. L. Thomas
Mr. Roy [illegible]
Mr. Malcom Mills
Mr. Allen V. Johnson, Jr.
Captain A. G. King, Jr.
Mr. Truman Campbell
Dr. Wm. G. Roche
Mr. Harry Payne
Dr. F. C. McLain

The meeting was called to order at 10:00 a.m., August 24, 1971, by Mrs. Dora File, Acting Chairman in the absence of Mr. A. P. Nisbet.

Mrs.File explained that 67 applicants had registered for the training project to begin September 13. Mrs.Ek and Mr. Crisp felt that 45 or 50 students would be the maximum number of students that could be taught effectively. The committee would have to reach a decision as to which applicants to accept.

Mrs. Ek had calculated the number each county could use as representatives from that county by the percentage of population for 1970 in each county published by the U.S. Census.

A copy of population,percentage, calculated number and number registered per county was given to each member present. This proposal was adopted by the members present and a discussion followed as to how to fill vacancies in counties that had not registered their calculated number.

Dr. Gilbert suggested that each county should be contacted to determine if their county would require certification.

The members present decided that the counties requiring certification should be given the vacancies from the counties that would not require certification and had not registered anyone.

Mr. Crisp stressed the importance of 100% attendance and profiency in the training project. He felt the registrants should realize that the ambulance services would have to be covered while the students were in class.

Mr. Higgenbotham suggested that if vacancies arose after two classes, these vacancies should be filled by someone else.

Mr. Kinard felt that Mr. Roy Still of the Greenwood Rescue Squad should be contacted and given the opportunity to register someof his members if he wished to participate.

The final decision was made that Dr. Gilbert would contact each county as to whether they would require certification of their ambulance drivers or not. Those counties requiring certification, who have not registered their allotted number would be given one week to respond. The vacancies would be fairly distributed to the counties requiring certification and future vacancies would be allotted by the decision of the coordinator.

Mrs. File stated that Mr. Russell had contacted her to see if classes could be held on Monday and Thursday nights instead of Monday and Wednesday nights. The classes would have to be held in the Greenwood High School gym to accomodate the number of students.

It was decided that the classes would be held on the first decision of Monday and Wednesday nights.

Mrs. Ek reported that Mr. Russell had no information on future EMT training programs.

The meeting was adjourned at 11:10 a.m.

District # 3 Steering Committee Members

Chester, Lancaster, Union, York

Miss Carol Latimer - State Coordinator

Regional Nurse Coordinator - Mrs. Janice Moses

Teacher Assistant - Mr. J. C. Munn

Chairman: Mr. Fred F. Ellison - Administrator - York General Hospital

Members:

Mrs. Mary Colvin, RN - American Red Cross

Mrs. Blanche McCarter, RN - York General Hospital

Mr. Wallace Deal - Industrial Coordinator - York Tec. Center

Dr. T. D. Fredrick - State Committee on Trauma

Mr. Harry Slacum - Administrator - Devine Savior Hospital

Mr. Robert McCollum - Administrator - Chester County Hospital

Mr. Elwood R. Eason - Administrator - Wallace Thompson Hospital

Mr. Russell Cooper - Assistant Administrator - York County Memorial Hospital

Mrs. Libby Neally - Model City Program - Rock Hill

Mrs. Betty Petty - Supervisor - York Memorial Hospital

Mr. Robert McFadden - Secretary - York County Delegation

Ass't. Chief C. A. Howell - Rock Hill Fire Department

Mr. Calvin Williams - Chairman of York County Rural Fire Commission

Captain W. T. Covick - Police Department - Rock Hill

Dr. James L. Hughes - Springs Mills

Mr. John W. Christmas - Fire Chief - Lancaster

Lt. P. L. Meek - Highway Patrol - Chester

Chief Carnes - Police Deparmtnet - Lancaster

Mr. M. C. Hughey - Police Department - Union

Minutes

EMT Steering Committee

York County Tec Center

District #3

Present:

Miss Carol Latimer
Mrs. Janice Moses
Mr. J. C. Munn
Mr. Fred Ellison
Mrs.Mary Colvin
Mrs. Blanche McCarter
Mr. Wallace Deal
Mr. Harry Slacum
Mr. Robert McCollum
Mr. Elwood E. Eason
Mr. Russell Cooper
Mrs. Libby Neally
Mrs. Betty Petty

Mr. Robert McFadden
Mr. Calvin Williams
Dr. James L. Hughes
Mr. M. C. Hughey
Mrs. Sarah Buchanan
Mr. Carlise Roddy
Mrs. Mildred London
Mrs. Carol Vinson
Dr. Robinson

Absent:

Dr. T. D. Frederick
Ass't. Chief Howell
Captain Covick
Mr. John Christmas
Captain Carnes

Mr. Ellison introduced himself as chairman of the Steering Committee and explained that this was a project for anyone concerned with better trained ambulance attendents. He then discussed the federal grant which had been obtained by the South Carolina Hospital Association.

Mr. Ellison introduced Miss Carol Latimer as the state coordinator for the EMT project. Miss Latimer explained that the EMT course was 87 hours and was free of charge. She told the committee that Greenville and Georgetown Technical Education Centers had already added this course to their cirriculum and that our course would be moved to another location in these particular health planning districts to reach people who were not enrolled inthe present courses.

A film, "Before the Emergency", was shown. This film points out the benefits to a community from well trained and equipped emergency personnel and vehicles.

Dr. Robinson from the South Carolina Health Department was introduced. He explained the ambulance bill and discussed the possibility that if enough counties exempted themselves from the certification of ambulance attendents that highway funds provided by the Federal government could be jeopardized. He also stated that the State Board of Health would give a certificate to anyone who had passed the ten hour basic red cross course. Dr. Robinson stated that it was impossible to have all ambulance attendents certified as EMT's before July, 1972, but that all attendents would eventually have to be certified.

Miss Latimer briefly discussed the functions of an EMT upon completion of the 87 hour EMT course.

Mrs. Moses was introduced as the nurse coordinator for this district and Mr. J. C. Munn was introduced as the teacher assistant. Mrs. Moses reported that at this time 42 people were registered for the class,with first priority going to ambulance attendents. Also, Mrs. Moses asked for voluntary lay instructors to assist in class from time to time. It was decided that class would be held on Tuesday and Thursday nights from 7:00 p.m. to 10:00 p.m., beginning November 16. Class will not be held from December 17 through January 2 as the Tec Center will be closed for Christmas holidays. The course will be completed on March 7, 1972.

The meeting was adjourned at 12:00.

CORRECTED COPY

Members of Steering Committee for District # 4
(Richland, Lexington, Fairfield, Newberry)

Coordinator - Miss Carol Latimer

District Coordinator - Mr. Wayne Vestal - Carolina Ambulance Service

Teacher Assistant - Mr. Fred McCurdy - Carolina Ambulance Service

Chairman:

Dr. Emmett Lunceford

Members:

Mrs. Mattie George - Inservice Department of Mental Health - Lexington County
Mrs. Mary Snipes - Vocational Education Department
Mr. George Douglas - Administrator - Fairfield County Memorial Hospital
Mr. Donald B. Logan - Assistant Director of Richland Memorial Hospital
Dr. Fred Clemenz - Medical Consultant for EMT Project
Mr. W. A. Boyce - Superintendent - S.C. Baptist Hospital
Mr. George I. Rentz - Administrator - Lexington County Hospital
Mr. Casey Blonaisz - Assistant Director of Comprehensive Health Planning
Mrs. Betty Tarrer - Emergency Services Supervisor - Richland Memorial Hospital
Mrs. Mary Rowe - Emergency Room Nurse - Baptist Hospital
Mr. L. A. Richardson - Administrator - Newberry County Hospital
Mrs. Juttie Forson - Medical Coordinator - Civil Defense
Col. DeLoache - Richland County Civil Defense (Represented by Col. Dempsey)
Dr. Ambrose Hampton - Heart Association (Represented by Mr. Alexander duHays)
Mr. Ken Johnson - American Red Cross
Mrs. Genevive Harrington - SCARS Rep. Lexington County
Mr. G. C. Robinette, Jr. - Finance Director - Chairman of Ambulance Commission
Miss Elizabeth Brown - Emergency Room Nurse - Lexington County Hospital
Dr. A. J. Richards, Jr. - State Committee on Trauma
Sister Alfonzo - Providence Hospital
Mr. Jim Daniel - Regional Medical Program
Mr. W. E. Kizer - Vocation Director-Wilson Voc. Ed. Center
Mr. John Austell - Midlands Tec. Center

MINUTES

District #4

Steering Committee Meeting
Columbia

The meeting was called to order by the chairman, Dr. Emmett Lunceford, at 7:30 p.m. on February 14, 1972 at the South Carolina Hospital Association. Dr. Lunceford introduced Carol Latimer as state coordinator for the EMT project and Mr. Wayne Vestal as district coordinator and Mr. Fred McCurdy as his assistant.

Miss Latimer introduced Mr. Earl Mitchell from the South Carolina State Board of Health. Mr. Mitchell briefly discussed the Ambulance Bill, as interpreted by the State Board of Health. He explained that presently only a Red Cross course or its equivalent would be necessary under the ambulance bill, but that eventually the State Board of Health would require everyone working in the emergency field to complete the 84 hour EMT course. He explained that the State Board of Health had set 1973 as the target date for the completion of the course by everyone. Mr. Mitchell also stated that at the present time 18 of the 46 counties in South Carolina had exempted themselves from the law. He also stated that some of the counties that exempted themselves were presently reconsidering and felt that eventually all counties would reconsider.

Mr. Wayne Vestal briefly discussed the functions of the EMT. They were as follows:

1. Prompt and efficient care of the patient before transport.
2. Control of the accident scene.
3. Extrication (light) and preparation of patient for transport.
4. Safe and efficient transport and continuing care of the patient on the way to the hospital.
5. Orderly transfer of patient and patient information to hospital emergency department.
6. Communications.
7. Reporting and record keeping.
8. Care of vehicle and equipment.

Mr. Vestal discussed each of these in some detail. Dr. Lunceford stressed the importance of understanding the rules of the EMT.

Discussion was held on whether people in unrelated fields should be permitted to take this course, and whether anyone under 18 should be allowed to take the course. It was decided that if space is available, those under 18 could be accepted and if space permitted people in unrelated fields could be allowed to take the course.

It was decided that in-hospital training should be devided between Baptist, Columbia, and Lexington County Hospitals, with persons from Fairfield County being able to complete 8 hours of the in-hospital training at Fairfield County Memorial Hospital instead of Columbia Hospital. Division of hospital training was decided upon because EMT would be taking patients to all three hospitals and this would give them a chance to become familiar with them.

It was decided that classes would start on February 22 and continue on Tuesday and Thursday nights from 7:00 to 10:00 p.m. The committee recommended that there be one lay instructor for each ten students.

An invitation was extended to members of the steering committee to visit the class as desired for observation. It was further suggested by Dr. Lunceford that the physicians on this committee might be called upon as back-up resource for the coordinator and tapes. This was agreed upon by the committee.

The meeting was adjourned at 9:30 p.m.

Members of Steering Committee for District # 5
(Aiken, Allendale, Bamberg, Barnwell, Calhoun, Orangeburg)

Coordinator - Miss Carol Latimer

Nurse Coordinator - Claudia Zeigler

Teacher Assistants - Fred McCurdy and Wayne Vestal

Chairman:

Mr. Phil Mabry - Administrator - Orangeburg Regional Hospital

Members:

Lynda Bishop - Director of Nursing - Orangeburg Regional
Bobby Sandel - Coordinator- Orangeburg Tec.
Charles Weber - Director - Orangeburg Tec.
William Peay - Administrator - Bamberg County Memorial Hospital
Joanne Ulmer - Emergency Room Nurse
Dr. Randy Smoak - Orangeburg
Dr. Henry Frierson - Orangeburg
Henry Batts - Bamberg Auto Parts
Alvin Palmer - Captain, Bamberg Rescue Squad
Sam Nesbet - Administrator - Aiken County Hospital
John Cook - Chief of Police - Orangeburg
Robert L. Stevenson - City Administrator - Orangeburg
Thomas Bryant, III - Orangeburg
Don Baughmnn - Orangeburg Regional Ambulance Service
Joe Myers - Myers Ambulance Service
Green Williams - Law Enforcement Coordinator
Jim Harmond - Program Coordinator
Lynda Wood - Planning and Development Commission, Aiken
Byron Palmer, Denmark Rescue Squad
D. C. Smith - Smith Funeral Home and Ambulance Service - Fairfax
Leonard Ferron - Chief of Support Services - Barnwell County Hospital
Lt. J. C. Pace - Highway Patrol - Orangeburg, South Carolina

Minutes for Steering Committee for District # 5
(Aiken, Allendale, Bamberg, Barnwell, Calhoun, Orangeburg)

Present:

Mr. Phil Mabry - Chairman
Miss Claudia Zeigler
Mr. Wayne Vestal
Mr. Fred McCurdy
Miss Carol Latimer
Mr. Bobby Sandel
Mr. Jim Hammond
Mr. Green Williams
Mr. John Cook
Mr. Henry Batts
Ms. Lynda Bishop
Ms. Joanne Ulmer
Dr. Henry Frierson
Mr. Alvin Palmer
Mr. Byron Palmer
Mr. Thomas Byrant
Mr. J. C. Pace
Mr. Don Baughman
Mr. Ramsey
Mr. Laird

Absent:

Mr. Charles Weber
Mr. William Peay
Dr. Randy Smoak
Mr. Sam Nesbet
Mr. Robert L. Stevenson
Mr. Joe Myers
Ms. Lynda Wood
Mr. D. C. Smith
Mr. Leonard Ferron

The meeting was called to order at 7:30 p.m. on January 6, 1972 by the chairman, Mr. Phil Mabry, administrator of the Orangeburg Regional Hospital. Mr. Mabry introduced Miss Carol Latimer, State Coordinator of the Emergency Medical Technician Project and briefly discussed the purpose of the EMT course.

Miss Claudia Zeigler was introduced as the Nurse Coordinator for the project. She discussed the function of an emergency medical technician. Mr. Wayne Vestal and Mr. Fred McCurdy were introduced as the Teacher Assistants for the course. Both teacher assistants are with the Carolina Ambulance Service in Columbia.

A film entitled "Before the Emergency" was shown to give the committee an idea of what well trained personnel could contribute to a community.

Miss Latimer introduced Mr. Earl Mitchell of the South Carolina State Health Department. Mr. Mitchell briefly discussed the ambulance bill and answered questions concerning the bill from the committee. He explained that ambulance personnel would have five years to become certified as EMT's. He stated that all attendents would have to be certified to comply with the 1966 Highway Safety Act.

Miss Latimer informed the committee that 69 persons had registered for the class but that we would be able to take only 50 to 54 students because of space, etc. She explained that ambulance attendents had first priority, then rescue squads, follwed by fire and police department personnel. The committee decided to take a certain number from each county depending upon their facilities.

The committee decided that class would be held on Monday and Wednesday nights from 7:00 to 10:00 p.m. Classes would begin on January 17, with the first class being used for pretesting of students.

The meeting was adjourned at 9:20 p.m.

Members of Steering Committee for District # 6

Coordinator - Dr. Davis D. Moise

Teacher Assistant - Mrs. Ann Reynolds, RN

State Coordinator - Miss Carol Latimer, RN

Chairman of Steering Committee

Mr. Ralph Abercrombie, Jr. - Administrator - The Tuomey Hospital

Members:

Mr. R. A. Weger - Administrator - Clarendon County Memorial Hospital
Mr. Richard Pate - Director of Clarendon County Memorial Hospital Ambulance Service
Mr. O. W. Watson - Administrator - Kershaw County Memorial Hospital
Mrs. Marian McC. Anderson - Administrator - Lee County Memorial Hospital
Dr. J. J. Britton - Sumter, South Carolina
Dr. Robert Jackson - Manning, South Carolina
Mr. James T. Darby - Executive Director - Comprehensive Health District Planning and Development
Mr. Jim Uzell - Assistant Administrator - The Tuomey Hospital
Mrs. Margaret Brown - Director of Nursing - The Tuomey Hospital
Dr. Frederick A. Stone - Sumter, South Carolina
Captain J. H. Brunson - Sumter Police Department
Deputy Chief H. D. West - Sumter Fire Department
Mr. David C. Gamble - Director of Ambulance Services - Tne Tuomey Hospital
Mr. Ashby Bradford - Civil Defense Director - Sumter, South Carolina
Mr. William Hicks - American Red Cross - Shaw Air Forec Base
Mr. Herman Felix - Regional Health Planning District
Mr. S. R. Barton - Regional Health Planning District
Dr. Lawrence R. Southerland - Sumter, South Carolina
Mr. Cecil Walters - Director of Technical Education Center - Sumter, South Carolina

Minutes

EMT Steering Committee

District # 6

The meeting was called to order March 16, 1972, at 5:30 p.m. Mr. Ralph Abercrombie, Administrator, of Tuomey Hospital and Chairman of the committee introduced himself and asked everyone to introduce themselves.

Mr. Earl Mitchell was then introduced. He is with the State Board of Health and briefly discussed the ambulance bill. He stated that at the present time, ambulance or rescue personnel needed only a Red Cross course but that eventually they would have to complete an emergency medical technicians course. He further stated that many of the counties that had exempted themselves from the ambulance bill had reconsidered and were now sponsoring their own courses to upgrade their people. Mr. Mitchell also stated that when all counties participating had a chance to take the course and did not they stood to lose federal financial aid.

Mrs. Ann Reynolds, teacher assistant for the Sumter course was introduced and briefly discussed the functions of an emergency medical technician. Mr. Abercrombie also introduced Dr. Moise, who will be the coordinator for the Sumter course.

Miss Latimer was introduced as the state coordinator for the EMT Project. She reported that 32 persons had registered at this time but feels that the class could accomodate at least 40 persons. This was discussed and it was decided that someone would contact the two counties not having anyone registered and give them a chance to register people before taking any from previously registered counties. She told the committee that the curriculum being used is put out by DOT and Highway Safety Bureau The textbook was written by the American Academy of Orthopaedic Surgeons.

It was decided to hold classes on Monday and Wednesday nights from 7:00 to 10:00 p.m. at the Educational Building at Tuomey Hospital. Mr. Walters, from the local Technical Education Center, reported that tape equipment would be available from them for the course.

Dr. Moise asked for a list of Red Cross Instructors from the area so that he might contact some of them to assist on a voluntary basis with the practical portion of the class. Miss Latimer also pointed out that both a Red Cross and EMT course must be completed before anyone could be certified by the State Board of Health.

The committee decided that all classes would be mandatory and no more than two classes could be missed unless they were covering a portion of the text that the person was already qualified in such as CPR, etc.

The committee decided to meet again half way through the course. The meeting was adjourned at 7:00 p.m.

Members of Steering Committee for District # 7

Chairman:

Dr. Hugh V. Coleman, Marion, S.C. Miss Carol Latimer, Coordinator

Members:

Mrs. Anna B. Speth - Nurse Coordinator

Mr. Joe Boatwright - Teacher Assistant

Mr. A. M. Counts - Administrator, Mullins Hospital

Mr. Bobby Phillips - Ass't. Administrator - Marion County Hospital

Mr. Kenneth Gallier - Administrator - McLeod Infirmary

Mr. B. B. Leitzsey - Director, Marion-Mullins Voc. Ed. Center

Mr. J. C. Graham, Rescue Squad, Marion, S.C.

Dr. Louis D. Wright, RMP Representative, McLeod Infirmary

Dr. Hunter Stokes, Florence, S.C.

Mrs. Leslie Jackson, R. N., Marion County Hospital

Mr. G. T. Posey, Business Manager, Bruce Hospital

Dr. Glen Askins, Heart Association President, Marion, S.C.

Mr. Glen B. Martin, Ass't. Administrator to City Manager, Florence

Mr. Cecil E. Ward, City Administrator, Darlington

Mr. Marvin Edens, Ass't. Administrator, General Hospital, Bennettsville

Mr. Thomas J. Stewart, Administrator, Chesterfield County Memorial Hospital

Mr. Bennie Buck, Captain, Rescue Squad, Darlington, S.C.

Mrs. Francis Leatherman, City Clerk and Treasurer, Dillon, S.C.

Mr. Jessie Irby, Comprehensive Health Planning Com., Mullins, S.C.

Chief Charles M. Skipper, Police Department, Marion, S. C.

Ass't. Chief Dudley, Darlington Police Department

Mr. Otis M. Trader, Hartsville Rescue Squad

Mr. Norman Davis, Assistant Administrator, Byerly Hospital

south carolina hospital association

Minutes of the EMT Steering Committee

District 7

October 12, 1971

Dr. Hugh Coleman of Marion, Chairman of the Steering Committee for District 7 opened the meeting at 7:30 p.m., by stating that the purpose of the Committee was to be an advisory one.

The film, "Before the Emergency" was shown. Dr. Coleman pointed out that few of the emergency facilities in South Carolina and their personnel are adequate at this time.

Dr. Coleman then led a discussion during which several points were brought to the attention of the group by members of the Committee:

1. South Carolina is the first state to receive this type of federal grant and this state will set the pace for other states to follow.
2. Qualified personnel have been obtained to aid in the preparation of the tests and other methods of evaluation.
3. One of the contributions the Committee could make would be to inform local organizations as to the purpose of this program.
4. It is possible for a community in another area to initiate this program there in order to provide a more convenient location for its personnel.

Mrs. Anna Speth was introduced as the nurse coordinator for this district and Mr. Boatwright is to be the teacher assistant. Classes are to begin on October 25, 1971 with the first three hour period being used for pre-testing. Classes will be held on Tuesday and Thursday nights from 7:00 to 10:00 p.m.

Mr. J. C. Graham stated that the reason we had no registrants from Florence and Darlington was because he planned to conduct a course independently for this area. He and Mr. Otis Trader of Hartsville agreed to assist this class as much as possible with the practice or performance portions.

There was discussion from other rescue squad members concerning the difficulty involved for volunteers to attend classes because of regular jobs.

The meeting was brought to a close by Dr. Coleman at 9:05 p.m. with no definite date set for a future meeting.

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Steering Committee Members
District No. 8
Williamsburg, Horry,
Georgetown
EMT Project

Nurse Coordinators:

Judy Purcell and Sandra Harrington, R. N.s, Williamsburg County Hospital, Kingstree

Teacher Assistant:

Robert Sullivan, Sullivan's Ambulance Service, Lake City, S. C.

Coordinator:

Carol Latimer, R. N.

Chairman of Steering Committee:

C. Milton Snipes, Administrator, Williamsburg County Hospital, Kingstree, S. C.

Members:

Hugh McCutchen - Supervisor, Williamsburg County, P. O. Box 330, Kingstree, S. C.
Robert E. Clark - Administrator, Georgetown County Hospital, Georgetown, S. C.
Gerald McKinney - Executive Director, Waccamaw Regional Planning Commission, Georgetown, S. C.
William Finlayson - Administrator, Conway Hospital, Inc., 1600 Ninth Ave., Conway, S. C.
Manson Turner - Administrator, Ocean View Memorial Hospital, 11th. Ave. North, Myrtle Beach, S. C.
James Forrestor, M. D. - Pyatt Memorial Building, Georgetown, S. C.
James Hughes, M. D. - 1603 Tenth Avenue, Conway, S. C.
Frank Watts - Administrator, Loris Community Hospital, 3212 Casey Street, Loris, S. C.
Dargan Haddock - Kingstree Ambulance, 411 Ashton Avenue, Kingstree, S. C.
Dwayne Douglas - P. O. Box 332, Hemingway Ambulance Service, Hemingway, S. C.
Thomas E. Redmond - Chief, Johnsonville Rescue Squad, Box 355, Johnsonville, S. C.
Min Todd - Executive Director, Williamsburg Red Cross, P. O. Box 184, Kingstree, S. C.
Clifford Harriss - American Red Cross, Myrtle Beach Air Force Base, Myrtle Beach, S. C.
Eleanor Johnstone - Executive Director, Georgetown Red Cross, P. O. Box 220, Georgetown, S. C.
Dr. J. F. Connonlly - Surgeon, Williamsburg County Memorial Hospital, Kingstree, S. C.
Chief S. L. McFadden - City Hall, Kingstree, S. C.
Chief W. B. Horton - 413 E. Main Street, Kingstree, S. C.
L. G. Harmon - City Manager, Georgetown, S. C.
Ed. Carraway - Ambulance Service
Woodrow Carter - Sheriff, Georgetown, S. C.

EMT MINUTES

District #8

Present

Mr. Snipes, Chairman
Mrs. Purcell
Mrs. Harrington
Mr. Sullivan
Mrs. Jacobs
Mr. McCutchen
Mr. McKinney
Dr. Hughes
Mr. Haddock
Mr. Douglas
Miss Latimer
Mr. Harriss
Mrs. Johnstone
Mr. Harmon
Mr. Carraway
Mrs. Merrill

Absent

Mr. Clark
Ms. Finlayson
Mr. Turner
Dr. Forrester
Mr. Watts
Dr. Connolly
Chief Horton
Sheriff Carner

Mr. C. Milton Snipes, Administrator for Williamsburg County Memorial Hospital introduced himself as the chairman of the Steering Committee and explained that this project was for the benefit of anyone concerned with better trained emergency personnel. Mr. Snipes introduced Miss Carol Latimer as the state coordinator for the EMT Project.

Miss Latimer explained that the EMT course was 87 hours and was free of charge. She stated that the course was being offered in each of the ten comprehensive health planning districts. Mrs. Sandra Harrington was then introduced as one of the nurse coordinators of the course. She briefly outlined the functions of an emergency medical technician.

A film, "Before the Emergency" was shown. This film pointed out the benefits to a community from well trained and equipped emergency personnel and vehicles.

Mr. Ernest Littlejohn from the State Department of Health was introduced. He briefly explained the ambulance bill and discussed the possibility that if enough counties exempted themselves from certification of ambulance attendants that highway funds provided by the Federal Government could be jeopardized. He also stated that the State Board of Health would give certification to anyone who had passed the ten hour basic red cross course.

Miss Latimer introduced Mr. Robert Sullivan, as teacher assistant and explained that he was completing the EMT course in Marion at this time. She introduced Mrs. Judy Purcell and Mrs. Sandra Harrington as the nurse coordinators for the course.

Discussion was held as to what nights would be best for the classes. It was decided that classes should be held on Monday and Thursday nights as this suited most of the applicants. Class was to begin on February 7, 1972, from 7:00 to 10:00 p.m.

The meeting was adjourned at 4:45 p.m.

Steering Committee Members District # 9 EMT Project

Miss Carol Latimer, Coordinator, EMT Project

Mrs. Rosemary Meyer, Regional Nurse Coordinator

Dr. Van Grubbs, Teacher Assistant

Chairman

Dr. Dabney Yarborough, III, Medical College

Members

Miss R. K. Bernhard, Director of Nursing, Charleston County Memorial Hospital

Dr. V. W. Campbell, Administrator, Charleston County Memorial Hospital

Captain M. W. Cantrell, Highway Patrol

Captain Clark, Commander of Traffic Division, Charleston City Police Department

Chief Conroy, Charleston City Police Department

Mr. W. E. Guthke, Chief, Charleston Fire Department

Mr. Ronald Hendrix, Associate Administrator, St. Francis Xavier Hospital

Mr. Bobby Herbert, Herbert's Ambulance Service

Mr. Earl Hutchinson, Dean of Instruction, TEC Center

Dr. Vince Mosley, Regional Medical Program for S.C., Charleston

Chief Ronald Pardee, Sr., James Island Fire Department

Mr. Charlie Parker, Director of Emergency Services, American Red Cross

Mr. Harold Rainer, Traffic Engineer, Department of Traffic and Transportation

Dr. Max S. Rittenburg, Medical College

Mr. Ira Donald Pooser, Crew Chief of Rescue, Charleston

Dr. C. Ford Rivers, Charleston

Miss Elsa Katherine Salvo, Director of Nursing, Roper Hospital

Lt. Sands, Charleston Police Department

Mr. John Snook, Evening Coordinator, TEC Center

Mr. Leon B. Ward, Charleston

Dr. Michael Weidner, Jr., VA Hospital, Charleston

Mr. Charles W. Fruit, Charleston Area Comprehensive Health Planning

south carolina hospital association

MINUTES

EMT Project

District #9

Present

Miss Carol Latimer
Mrs. Rosemary Meyer
Dr. Van Grubbs
Dr. Dabney Yarborough
Miss R. K. Bernhard
Dr. V. W. Campbell
Mr. Bobby Herbert
Mr. Earl Hutchinson
Mr. Charlie Parker
Mr. Harold Raynor
Mr. Ira Donald Pooser
Miss Elas Katherine Salvo
Lt. Sands
Mr. John Snook
Dr. Michael Weidner, Jr.

Absent

Captain Clark
Chief Conroy
Captain Cantrell
Mr. W. E. Guthke
Mr. Ronald Hendrix
Dr. Vince Mosley
Chief Pardee
Dr. Max Rittenbury
Dr. C. Ford Rivers
Mr. Leon Ward
Mr. Charles Fruit

Also Present

Mr. Charles Sams
Mr. Alex Robb
Mr. Dick Gerry
Ms. Ruth Christie

The meeting was called to order by the Chairman, Dr. Dabney Yarborough at 2:00 p.m. on September 7, 1971 at the Berkeley, Charleston, Dorchester Technical Education Center.

Dr. Yarborough introduced Miss Carol Latimer as the State Coordinator for the EMT Project and Mrs. Rosemary Meyer as Regional Coordinator and Dr. Van Grubbs as the teacher assistant. Dr. Yarborough asked Miss Latimer to briefly discuss the purpose of the EMT Project. Miss Latimer stated that the main purpose of the EMT project was to get all ambulance attendants and rescue squad personnel trained by July 1, 1972. She also explained that this was the only free course available to certify ambulance attendants. Miss Latimer informed those present that the course would be for 87 hours, including the pre-testing and three hours recommended by the State Board of Health.

Mr. Charlie Parker asked whether the American First Aid course mentioned in the ambulance bill was the same as the Red Cross First Aid Course. Miss Latimer stated that it was the same. Miss Salvo questioned the passing of an ambulance bill without anything about properly equipping the ambulances themselves in the bill. Dr. Weidner stated that it was his understanding that this was deleted from the bill so that it might be passed sooner, but ambulance equipment would be added at a later date.

Lt. Sands of the Charleston City Police Department asked whether another course would be taught after the pilot course. Mr. Snook of the TEC Center assured him that another course would be taught at TEC if there was enough community need.

Discussion was held to decide the days and hours to hold class. It was agreed to hold class on Monday and Wednesday nights of each week from 7 to 10 o'clock except for the Mondays after Christmas and New Year's Day. Classes are to begin on October 4, 1971 at the Berkeley, Charleston, Dorchester TEC Center. The class will be limited to 60 persons.

Dr. Campbell brought to the Steering Committee's attention that only one person from the County Police Department had registered. Dr. Campbell said that he would check with the County Police Department and the City Manager about registering more people as they handle the most emergency calls in the area.

Miss Latimer reported that there would be a workshop in Columbia at the South Carolina Hospital Association for the Regional Coordinators and Teacher Assistants on September 9, 1971 at 2:30 p.m.

The meeting was adjourned at 4:15 p.m.

Steering Committee Members
District 10
Beaufort, Colleton, Hampton, Jasper
EMT Project

Chairman:

Dr. Richard Price - 126 S. Rubaut Road, Beaufort, South Carolina

Members:

Mrs. Kathie Lawrence - Nurse Coordinator
Mr. Mills Black - Teacher Assistant
Mr. John Moffitt - Teacher Assistant
Miss Carol Latimer - EMT Coordinator
Mr. James Cullom - Red Cross
Mr. Ray Masneria - Bayview Nursing Home
Col. Louis Smunk - Civil Defense
Dr. B. H. Kyserling - Beaufort
Dr. Jerry Gallaway - Beaufort
Mrs. Lee Myers - Beaufort County Hospital
Mrs. Frankie Green - Beaufort County Hospital
Mr. Curtis Copeland - Morrall-Copeland Funeral Home
Mr. E. H. Clarke, Jr. - Administrator, Colleton County Hospital
Chief L. R. Rentz - Beaufort Police Department
Mr. J. Albert McNab - Administrator, Hampton General Hospital
Mr. Jimmy Holland - Peeples-Holland Funeral Home
Mr. Edgar C. Copeland - Red Cross, Parris Island
Captain Stone - U. S. Naval Hospital
Mr. Timothy P. Ryan - Beaufort County Hospital
Mr. Louis Holliday, Jr. - Beaufort Regional Technical Center

MINUTES

District # 10
Beaufort, Colleton, Hmapton and Jasper Counties

The meeting was called to order by Dr. Richard Price at 10 a.m. on March 9, 1972. Dr. Price explained the great need for this type of training and the role that the steering committee was to undertake. Dr. Price discussed the MAST Project which is awaiting funding and the benefits the state would gain in emergency medical services if this were funded, such as helicopters for transportation in isolated areas. He emphasized the first step in improving emergency medical services was to train the personnel.

Introductions were made. Mrs. Kathie Lawrence was introduced as the nurse coordinator and Mr. Mills Black and Mr. John Moffitt as the teacher assistants.

The film, "Before the Emergency" was shown. Dr. Price expounded on some of the points brought out in the film and the purpose of this meeting and committee.

The ambulance bill was briefly discussed by Mr. Ernest Littlejohn of the State Board of Health. He discussed the possibility that counties exempting themselves from the ambulance bill were in danger of losing federal funds. He also stated that the State Board of Health would certify anyone who had passed the ten hour basic red cross course at this time but would have to have additional training in the near future.

There were 34 persons registered for the course and Miss Latimer stated that the class could accomodate about 10 more people. Several registration cards were taken by members of the committee to be completed by persons they thought would be interested in taking the course. These cards were to be mailed to Miss Latimer at the S. C. Hospital Association in Columbia.

There were suggestions for enlarging the committee and Dr. Price told the committee that they would be notified of the next committee meeting. The Meeting was adjourned at 11:30 p.m.

APPENDIX F

Videotape Teaching Modules for EMT Training Programs in South Carolina

Coordinator's Guide

Videotape Teaching Modules

for

EMT Training Programs in South Carolina

Coordinator's Guide

Carol F. Latimer
S. C. Hospital Association
101 Medical Circle
West Columbia, S. C.

July 11, 1972

PROJECT DESIGN AND OBJECTIVES

The South Carolina Hospital Association, under a contract from the National Institutes of Health, initiated a project in June 1971 to train emergency medical technicians on a statewide basis. Two important objectives of the project, in addition to the provision of training, were (1) to determine, through research, factors influencing successful completion of the Emergency Medical Technicians-Ambulance course approved by the Department of Transportation and (2) to study the effectiveness of using videotaped instruction for portions of the curriculum.

Over a one-year period, the South Carolina Hospital Association has conducted ten EMT training programs, one in each of the comprehensive health planning districts of the state. A statewide coordinator on the Association staff, selected the coordinator and faculty for each course, and coordinated all of the programs at the state level. Four of the EMT courses were taught in traditional methods, without the use of television. Six of the courses utilized a combination of "live" instruction and video-taped presentations. Through pre-enrollment testing and the administration of standardized tests to each class, studies were made to determine what differences, if any, existed in the effectiveness of the two methods of teaching. Pre-enrollment testing was also used to determine what biographical factors, i. e., education, experience, perception, etc., influence successful completion of the course.

INTERAGENCY COOPERATION AND COMMUNITY SUPPORT

Interagency cooperation, coordination and community support provided a strong foundation for South Carolina's emergency medical technicians' training project. A statewide steering committee, composed of representatives of the South Carolina Hospital Association, the S. C. State Board of Health, the S. C. Department of Vocational Education, the State Committee for Technical Education, the State Committee on Trauma, the S. C. Heart Association and the S. C. ETV Center, met monthly to advise on all aspects of the project. Upon completion of the project, this committee elected to continue in an advisory capacity for agencies continuing the basic EMT training course.

Ad hoc advisory committees were established in each of the ten planning districts to advise regional course coordinators and instructors in implementation of the course. These committees included representation from local hospitals, the regional health planning councils, local medical societies, the State Committee on Trauma, ambulance services, rescue squads, funeral homes, emergency department personnel and other selected individuals.

INSTRUCTION METHODS

The faculty for the first four courses in the project consisted of physicians, nurses, paramedical specialists and rescue squad personnel in the region. Only those audiovisual aids recommended in the DOT Instructors guide were used. Beginning with the fifth course, videotaped teaching modules were substituted for live instruction where appropriate. Forty-one modules were produced, representing approximately nineteen hours of televised instruction. The portions of the curriculum selected for televising were those dealing with presentation of theory, basic anatomy and physiology, and initial description of procedures used by the emergency medical technician. A strong effort was made to get maximum visual impact in the televised instruction, through extensive use of slides, illustrations, mannikins and demonstrations of techniques.

There is a 23-minute coordinator's orientation (module no. 40) which should benefit new instructors.

TEST DEVELOPMENT AND RESEARCH

Through the services of two qualified consultants, a battery of tests were prepared. These were designed to measure comprehension of material and acquired skills, in addition to providing a means of comparing the relative effectiveness of the all-live and combination live-television courses.

Data gained through research indicated that there is no significant difference in learning for students enrolled in the all-live courses versus the live with videotape course. A 100 question validated test has been developed as a standardized final exam. This test has been taped and titled Teaching Module Number 41. The module consists of 100 objective questions (multiple choice) of which some are situational and others anatomical basic knowledge. The questions are also narrated, which should aid slow readers and standardize the time required to administer the test.

Data gained through the pre-test developed by Robert Brown, Ph. D., of Brown and Associates indicated that an I. Q. test (Test of Awareness available from Dr. Brown in Greenville) and a 20-item terminology test (Appendix A) is a good predictor as to whether the candidate will successfully complete the course. His research of 483 students indicates that an I. Q. of 80-89 should have a score of 11 or more on terminology. I. Q.'s of 90-99 would require a score of 6 or more on terminology. There is not too much to be done about I. Q., but the candidate may familiarize himself with medical terminology in order to improve his chances of passing the EMT test.

PLAN FOR CONTINUOUS TRAINING

The S. C. Department of Vocational Education and the State Committee for Technical Education agencies, which together have a total of 46 educational facilities located throughout the state, have indicated an interest in conducting continuing EMT courses in the future, based upon extent of need.

The South Carolina Hospital Association has issued ten (10) sets of the 42 teaching modules to these agencies which are available on a loan basis to the Technical Education Centers and Vocational Education Centers for for continuing EMT courses.

The following outline is a guide for coordinators utilizing the videotapes. These teaching modules correspond with the Instructor's Lesson Plans by the Department of Transportation and U. S. Highway Traffic Administration published by Dunlap and Associates (Basic Training for Emergency Medical Technicians-Ambulance). Also the Concepts and Recommendations and the Course Guide and Course Coordinator Orientation Program to be used are published by the Department of Transportation. The textbook, Emergency Care and Transportation of the Sick and Injured is published by the Committee on Injuries-American Academy of Orthopaedic Surgeons.

The interagency state steering committee has recommended that passing score for both the performance ratings and standardized test be no less than 75%.

LESSON NUMBER 1 - THE EMERGENCY MEDICAL TECHNICIAN (EMT). . .HIS ROLE, RESPONSIBILITIES AND EQUIPMENT

TEACHING MODULES 1, 2 and 3

Module No. 1 Introduction

Time: 3 minutes, 30 seconds
Presentation: Fred W. Clemenz, M. D. - Surgeon
Content: p. p. (1-3) - Introductory Remarks - Items 4-6

Remarks: Supplement with further information if necessary. Continue with lesson plan as outlined.

Module No. 2 Medico-legal Problems

Time: 13 minutes, 30 seconds
Presentation: Douglas McKay, Jr., Attorney
Wayne Vestal, EMT
Donald Baker, EMT
Content: p. p. (1-7) - Medico-legal Problems - Item 1 (a.b.c.)

Remarks: Instructor may wish to discuss local ordinances and answer questions concerning tape.

Module No. 3 Overview of Anatomy

Time: 41 minutes, 15 seconds
Presentation: William Crisp, Inhalation Therapist
Content: p. p. (1-8) - (1-9) - Overview of Anatomy - Items 1-2

Remarks: 18 minutes and 45 seconds allowed for student questions and further discussion. Continue lesson as outlined.

LESSON NUMBER 2 - AIRWAY OBSTRUCTIONS AND PULMONARY ARREST

TEACHING MODULES 4 and 5

Module No. 4 Basic Mechanics of Respiration

Time: 35 minutes, 8 seconds
Presentation: David E. Tribble, M. D. - Thoracic Surgeon
Ambrose Hampton, Jr., M. D. - Internist-Cardiologist
Content: p. p. (2-3) - (2-6) - Basic Mechanics of Respiration - Items 1-4; Airway Care Items 1-5; Mouth-to-Mouth (Nose) Technique of Pulmonary Resuscitation - Items 1-7

Remarks: The instructor should continue with lesson plan conducting the 50 minute practice session on p. p. 2-7.

LESSON NO. 2 (continued)

Module No. 5 The Laryngectomee

Time: 10 minutes, 30 seconds
Presentation: David E. Tribble, M. D. - Thoracic Surgeon
Content: p. p. (2-7) - (2-8) - Laryngectomee - Items 1-8

Remarks: Students should be familiar with this procedure having had recommended pamphlet prior to the class. Continue lesson plan as outlined. It was felt that the manual pressure methods of pulmonary resuscitation could be demonstrated more effectively live.

LESSON NUMBER 3 - NO TAPES - MECHANICAL AIDS TO BREATHING & PULMONARY RESUSCITATION

Remarks: This lesson is demonstration of equipment and practice which is probably more effectively done live. Instructor should have working knowledge of principles in use of this equipment.

LESSON NUMBER 4 - CARDIAC ARREST

TEACHING MODULE 6

Module No. 6 Basic Mechanics of Circulation I

Time: 15 minutes
Presentation: Ambrose Hampton, Jr., M. D. - Cardiologist-Internist
Content: p. p. (4-3) - (4-4) - Basic Mechanics of Circulation - Items 1-5

Remarks: Instructor should follow lesson plan with Signs of Cardiac Arrest on p. p. 4-4. The S. C. Heart Association has recommended the newer film "Prescription for Life" as a replacement for "Pulse of Life." After film, follow lesson plan as outlined. If the S. C. Heart Association's 3-hour lesson plan on mobile CPR is used as required by the S. C. State Board of Health, Item 10 on p. p. 4-6 is not necessary in this lesson.

LESSON NUMBER 5-A - MOBILE CPR

Time: 3 hours

Remarks: This lesson should be obtained from the S. C. Heart Association and taught live by a CPR instructor trained in this procedure. (See Appendix H.)

LESSON NUMBER 5 - BLEEDING, SHOCK AND PRACTICE ON AIRWAY CARE, PULMONARY RESUSCITATION AND CARDIOPULMONARY RESUSCITATION

TEACHING MODULE 7

Module No. 7 Basic Mechanics of Circulation II

Time: 56 minutes, 10 seconds

LESSON NO. 5 (continued)

Presentation: Robert E. Jackson, M. D. - GP and Surgeon
Content: p. p. (5-3) - (5-7) - Basic Mechanics of Circulation - Items 1-6; External Bleeding - Items 1-8; Internal Bleeding - Items 1-5; Shock - Items 1-8

Remarks: Instructor will have 15 minutes after tape for further discussion. Continue with practice session as outlined.

LESSON NUMBER 6 - PRACTICE, TEST AND EVALUATION. . .AIRWAY CARE, PULMONARY ARREST, CARDIAC ARREST, BLEEDING AND SHOCK

Remarks: Recommend 30-question situation written test to prepare and coach student for final exam. Performance test checklist printed. (See Appendix B.) See Appendix F - scoring key)

LESSON NUMBER 7 - WOUNDS

TEACHING MODULE 8

Module No. 8 General Type and Care of Injuries

Time: 20 minutes
Presentation: Lawrence D. Hanback, Jr., M. D.
Content: p. p. (7-3) - (7-5) - General Type and Care of Injuries - Items 1-3; Classification of Wounds - Items 1-2

Remarks: Continue lesson plans as outlined.

LESSON NUMBER 8 - FRACTURES OF THE UPPER EXTREMITY

TEACHING MODULES 9 and 10

Module No. 9 The Musculo-Skeletal System

Time: 46 minutes, 30 seconds
Presentation: Ralph Seer Owings, M. D. - Orthopedist
Content: p. p. (8-3) - (8-6) - The Musculo-Skeletal System - Items 1-2; General Concepts of Fractures and Dislocations - Items 1-8; General Principles for Care of Fractures and Dislocations - Items 1-8

Remarks: Tape continues lesson plan as outlined.

Module No. 10 Fractures and Dislocations of the Upper Extremity

Time: 21 minutes
Presentation: Ralph Seer Owings, Jr., M. D. - Orthopedist
Content: p. p. (8-6) - (8-7) - Fractures and Dislocations of the Upper Extremity - Items 1-10

Remarks: 24 minutes is allowed for further discussion and demonstration. Tape carries lesson to practice session.

LESSON NUMBER 9 - FRACTURES OF THE LOWER EXTREMITY

TEACHING MODULE 11

Module No. 11 Fractures and Dislocations of the Lower Extremity

Time: 23 minutes, 40 seconds
Presentation: Ralph Seer Owings, Jr., M. D. - Orthopedist
Content: p. p. (9-3) - (9-4) - Fractures and Dislocations of the Lower Extremity - Items 1-9

Remarks: There is 25 minutes allowed for further discussion by instructor.

LESSON NUMBER 10 - INJURIES OF THE HEAD, FACE, NECK AND SPINE

TEACHING MODULES 12, 13, and 14

Module No. 12 The Nervous System

Time: 20 minutes
Presentation: Daniel B. Paysinger, M. D. - Neurosurgeon
Content: p. p. (10-3) - (10-5) - The Nervous System - Items 1-3; Fractures and Dislocations of the Neck and Spine - Items 1-6 and Items 8-11

Remarks: Item 7 (Immobilization of Neck) should be demonstrated in classroom by instructor. There is 20 minutes allowed for this demonstration and further discussion.

Module No. 13 Injuries to Skull and Brain

Time: 20 minutes
Presentation: Daniel B. Paysinger, M. D. - Neurosurgeon
Content: p. p. (10-5) - (10-6) - Injuries to Skull and Brain - Items 1-9

Remarks: There is 10 minutes allowed for discussion.

Module No. 14 Injuries to the Head, Face, Neck

Time: 13 minutes
Presentation: F. O. Schuh, M. D. - Neurosurgeon and Plastic Surgeon
Content: p. p. (10-6) - (10-7) - Injuries to the Head, Face and Neck - Items 1-5

Remarks There is 15 minutes allowed for class discussion prior to practice session.

LESSON NUMBER 11 - INJURIES TO THE EYE, CHEST, ABDOMEN, PELVIS, GENITALIA

TEACHING MODULES 15, 16, 17 and 18

Module No. 15 Injuries to the Eye

Time: 19 minutes, 25 seconds
Presentation James Graham, M. D. - Opthalmologist
Content: p. p. (11-3) - (11-5) - Injuries to the Eye - Items 1-12

Remarks: There is 15 minutes allowed for discussion prior to next tape or subject.

LESSON NUMBER 11 (continued

Module No. 16 Injuries to the Chest and Back

Time: 18 minutes
Presentation: Albert L. Reid, M. D. - General and Thoracic Surgery
Content: p. p. (11-5) - (11-6) - Injuries to the Chest and Back - Items 1-12

Remarks: There is 12 minutes allowed for class discussion

Module No. 17 Injuries to the Abdomen

Time: 20 minutes
Presentation: Max S. Rittenbury, M. D. - General Surgeon
Content: p. p. (11-6) - (11-7) - Injuries to the Abdomen - Items 1-4

Remarks: Further discussion if necessary - continue lesson plan.

Module No. 18 Fractures of the Pelvis

Time: 18 minutes
Presentation: Hugh V. Coleman, M. D. - General Surgeon
Content: p. p. (11-7) - (11-8) - Fractures of the Pelvis - Items 1-2; Inuries to Genitalia - Items 1-4

Remarks: Discussion as necessary - continue lesson plan

LESSON NUMBER 12 - PRACTICE, TEST AND EVALUATION. . .INJURIES I

Remarks: Recommend 30-item written test. Performance test no. 2 - part 1 (See Appendix B). See Appendix F for scoring.

LESSON NUMBER 13 - PRACTICE, TEST AND EVALUATION. . .INJURIES II

Remarks: Performance test 2 - part 2 (See Appendix B). See Appendix F for scoring.

LESSON NUMBER 14 - MEDICAL EMERGENCIES I

TEACHING MODULES 19, 20, and 21

Module No. 19 Poisoning

Time: 20 minutes
Presentation: Margaret Q. Jenkins, M. D. - Pediatrician, Director of Poison Center, Charleston, S. C.
Content: p. p. (14-3) - (14-6) - Poisoning - Items 1-6; Poisonous Bites and Stings - Items 1-5

Remarks: Five minutes allowed for futher discussion - recommend instructor distribute chart of common poisons and recommend antidotes (available from State Board of Health). Advise EMT's to post in all ambulances.

LESSON NUMBER 14 (continued)

Module No. 20 Heart Attack

Time: 28 minutes, 20 seconds
Presentation: Ambrose Hampton, Jr., M. D. - Cardiologist and Internist
Content: p. p. (14-6) - (14-8) - Heart Attack - Items 1-4; Stroke - Items 1-3

Remarks: Further discussion if necessary.

Module No. 21 Dyspnea

Time: 12 minutes
Presentation: Ambrose Hampton, Jr., M. D. - Cardiologist and Internist
Content: p. p. (14-8) - (14-9) - Dyspnea - Items 1-6

Remarks: Further discussion if necessary. Continue lesson plan and practice as outlined.

LESSON NUMBER 15 - MEDICAL EMERGENCIES II

TEACHING MODULES 22, 23, 24, 25, and 26

Module No. 22 Diabetes

Time: 12 minutes, 45 seconds
Presentation: Mims E. Mobley, Jr., M. D. - Internist
Content: p. p. (15-3) - (15-5) - Diabetes - Items 1-7

Remarks: Continue lesson plan

Module No. 23 Acute Abdomen

Time: 8 minutes, 30 seconds
Presentation: Michael G. Weidner, Jr., M. D. - General Surgeon
Content: p. p. (15-5) - Acute Abdomen - Items 1-4

Remarks: Discussion if necessary and continue lesson plan.

Module No. 24 Communicable Diseases

Time: 9 minutes
Presentation: Mims E. Mobley, Jr., M. D. - Internist
Content: p. p. (15-6) - Communicable Diseases - Items 1-3

Remarks: Discussion if necessary and continue lesson plan.

Module No. 25 The Emotionally Disturbed and Unruly Patient

Time: 20 minutes
Presentation: Robert N. Milling, M. D. - Psychiatrist
EMT's from Carolina Ambulance Service
Contents: p. p. (15-7) - (15-8) - The Emotionally Ill and Unruly Patient - Items 1-7

Remarks: Discussion if necessary and continue lesson plan.

Module No. 26 Epilepsy and Convulsions

Time: 12 minutes, 30 seconds
Presentation: Joseph W. Taber, Jr., M. D. - Neurologist
Content: p. p. (15-8) - (15-9) - Epilepsy and Convulsions - Items 1-2; The Unconscious State - Items 1-2

Remarks: Discussion if necessary and continue lesson plan

LESSON NUMBER 16 - CHILDBIRTH AND PROBLEMS OF CHILD PATIENTS

TEACHING MODULES 27, 28, 29, and 30

Module No. 27 Relevant Anatomy, Physiology, Terms and Equipment

Time: 14 minutes
Presentation: J. J. Britton, M. D. - Obstetrician and Gynecologist
Content: p. p. (16-3) - (16-4) - Relevant Anatomy, Physiology, Terms and Equipment - Items 1-2

Remarks: Discuss considerations and continue lesson plan with film "Emergency Childbirth"

Module No. 28 Resuscitation of the Newborn

Time: 11 minutes, 55 seconds
Presentation: J. J. Britton, M. D. - Obstetrician and Gynecologist
Content: p. p. (16-6) - Resuscitation of the Newborn - Item B (1-7)

Remarks: This module is a portion of the demonstration beginning on p. p. (16-5) and should be shown in the sequence of the lesson plan.

Module No. 29 The Premature Infant

Time: 11 minutes, 50 seconds
Presentation: J. J. Britton, M. D. - Obstetrician and Gynecologist
Content: p. p. (16-8) - Characteristics of the Premature Infant - Item 5 (a-f)

Remarks: This module is a portion of the demonstration beginning on p. p. (16-5) and should be shown in the sequence of the lesson plan.

Module No. 30 Problems of Child Patients

Time: 20 minutes
Presentation: Margaret Q. Jenkins M. D. - Pediatrician
Content: p. p. (16-9) - (16-10) - Problems of Child Patients - Items 1-4

Remarks: There is 5 minutes allowed for further discussion.

LESSON NUMBER 17 - LIFTING AND MOVING PATIENTS

TEACHING MODULE 31

Module No. 31 General Problems of Moving and Positioning Patients

Time: 13 minutes, 40 seconds
Presentation: Robert Christmas, EMT
Content: p. p. (17-3) - (17-6) - General Problems of Moving and Positioning Patients

Remarks: This is only a brief demonstration of principles and methods. The instructor will need a great deal of supplementation and further demonstration for this lesson.

LESSON NUMBER 18

Remarks: Written test - as before
Performance test -(See Appendix D). See Appendix F for scoring.

LESSON NUMBER 19 - ENVIRONMENTAL EMERGENCIES

TEACHING MODULES 32 and 33

Module No. 32 Burns

Time: 52 minutes
Presentation: Dabney R. Yarborough, III, M. D. - General Surgeon
Andrew Corbett - Training Officer, S. C. Electric & Gas Company
Fred W. Clemenz, M. D. - General Surgeon
Content: p. p. (19-3) - (19-6) - Burns - Item 1; Heat Burns - Items 1-9; Chemical Burns - Items 1-4; Electrical Burns - Items 1-4

Remarks: The major portion of this module was done by Dr. Yarborough. It was felt there should be more emphasis put on the EMT's protection while working with electrical hazards. This segment was done by the training officer of a utility company. Radiation burns are mentioned briefly in the next tape because of their rarity. The instructor may wish to spend considerable time on this portion.

Module No. 33 Heat Exposure

Time: 19 minutes
Presentation: Fred W. Clemenz, M. D. - General Surgeon
Content: p. p. (19-7) - (19-12) - Heat Exposure - Items 1-6; Cold Exposure - Items 1-6; Drowning - Items 1-11; Explosions - Items 1-3

Remarks: There is about 30 minutes allowed for further discussion of these subjects including radiation burns.

LESSON NUMBER 20 - EXTRICATION FROM AUTOMOBILES

TEACHING MODULE 34

Module No. 34 Basic Considerations in Extrication

LESSON NUMBER 20 (continued)

Time: 18 minutes
Presentation: Ronald Westray - EMT - narrator
Fred McCurdy - EMT - Extrication
Content: p. p. (20-3) - (20-6) - Basic Considerations in Extrication - Items 1-11

Remarks: Actual demonstration of extricating victims from wrecked vehicle. Instructor will need further demonstration and detail for procedures and care in different [illegible] situations. Ample time is allowed for this.

LESSON NUMBER 21 - OPERATIONS -- DRIVING AN EMERGENCY VEHICLE, MAINTAINING A SAFE AND READY VEHICLE, RECORDS AND REPORTS, COMMUNICATIONS, AND PROCEDURES AT HOSPITAL EMERGENCY ROOMS

TEACHING MODULES 35, 36, 37, and 38

Module No. 35 Maintaining a Safe and Ready Vehicle

Time: 15 minutes
Presentation: Henry Petit - EMT Paramedics, Inc.
Contents: p. p. (21-5) - (21-7) - Maintaining a Safe and Ready Vehicle - Items 1-3

Remarks: Driving an emergency vehicle should be taught live by instructors. It may be desirable to invite a highway patrolman to advise class. Five minutes is allowed for class discussion.

Module No. 36 Records and Reports

Time: 20 minutes
Presentation: Henry Petit - EMT - Paramedics, Inc.
Content: p. p. (21-7) - (21-10) - Records and Reports - Items 1-8

Remarks: Ten minutes is allowed for class discussion for types of records used locally and possible means of improvement.

Module No. 37 Communications

Time: 10 minutes, 45 seconds
Presentation: Henry Petit- EMT - Paramedics, Inc.
Content: p. p. (21-10) - Communications - Items 1-3

Remarks: 19 minutes is allowed for discussion of local communications systems. Instructor may invite a dispatcher from local hospital to advise class.

Module No. 38 Procedures at Hospital Emergency Room

Time: 15 minutes, 30 seconds
Presentation: Elizabeth Brown, R. N. - Emergency Room, Assistant Head Nurse
Content: p. p. (21-11) - (21-12) - Procedures at Hospital Emergency Room - Items 1-5

Remarks: Instructor may wish to discuss procedures in local emergency rooms indicating weaknesses and strengths. It would be beneficial to elaborate on F. C. C. regulations.

LESSON NUMBER 22 - RESPONDING TO AN AMBULANCE CALL

TEACHING MODULE 39

Module No. 39 Phases of an Ambulance Call

Time:	13 minutes, 25 seconds
Presentation:	Ronald Westray - EMT
Content:	p. p. (22-3) - (22-6) - Phases of an Ambulance Call - Item 1 (a-e); Dispatch and Travel to Scene - Items 1-3
Remarks:	Twelve minutes is allowed for class discussion. Module stops with item "e" on p. (22-6) and instructor will discuss vital signs as outlined in lesson plan. Remainder of lesson is presented by instructor.

LESSON NUMBER 23 - SITUATIONAL REVIEW

Remarks: Follow lesson plan as outlined.

LESSON NUMBER 24 - FINAL WRITTEN TEST

TEACHING MODULE 41

Module No. 41 Test

Time:	90 minutes
Presentation:	John Wrisley - Narrator
Content:	100 questions
Remarks:	Students will be given 100 item answer sheet with instructions and will answer each question. There is only one correct answer for each question. Instructors and answer sheet - See Appendix G.

LESSON NUMBER 25 - FINAL PRACTICAL EVALUATION OF SKILLS

Remarks: Performance Checklist
See Appendix D.
See Appendix F for scoring.

APPENDIXES

Appendix A	Terminology test
Appendix B	Performance checklist - Test I
Appendix C	Performance checklist - Test II - Part I Performance checklist - Test II - Part II
Appendix D	Performance checklist - Test III
Appendix E	Performance checklist - Test IV Final performance
Appendix F	Key for scoring performance test
Appendix G	Sample answer sheet for standardized final written exam Module Number 41
Appendix H	Lesson 5-A Cardiopulmonary Resuscitation During Transportation, Including Loading Procedures
Appendix I	Inhospital Training Checklist

EMT TERMINOLOGY TEST

Name: ______________________________

Directions: State, in as few words as possible, what is meant by each of the following expressions.

1. Abdominal injury ______________________________
2. Airway obstructed ______________________________
3. Cardiac arrest ______________________________
4. Cardiac compression ______________________________
5. Cardiovascular system ______________________________
6. Carotid pulse ______________________________
7. Closed trauma ______________________________
8. Comatose ______________________________
9. Extrication method ______________________________
10. Internal hemorrhage ______________________________
11. Lower extremities ______________________________
12. Muccous membrane ______________________________
13. No sensation ______________________________
14. Positive pressure ventilation ______________________________
15. Pupils dilated ______________________________
16. Radial pulse ______________________________
17. Regular pulse ______________________________
18. Respiratory distress ______________________________
19. Stuporous ______________________________
20. Suspected fracture ______________________________

Appendix B

Test 1: Performance Check Lists

Name of Student ____

Place ______________________________ Date ________________

A. Bag-mask technique of artificial respiration. (Classmate as subject)

__________1. Observe vital signs.

__________2. Position head.

__________3. Check for and clear any material that might cause an obstruction.

__________4. Adequate seal around face mask.

__________5. Proper rate of ventilation.

Overall performance: superior__________adequate__________unsatisfactory__________

Time required to complete task: very little________moderate________excessive________

Signature of evaluator: ____

B. Use of suction equipment (manikin)

__________1. Determine need.

__________2. Proper setting up of equipment.

__________3. Proper use of equipment.

__________4. Cleaning and storing of suction unit.

Overall performance: superior__________adequate__________unsatisfactory__________

Time required to complete task: very little________moderate________excessive________

Signature of evaluator: ____

C. Operation of oxygen equipment. (classmate as subject)

__________1. Set up equipment from normally transported condition.

__________2. Proper adjustment of oxygen flow.

__________3. Connection of face mask and proper application of mask to face.

__________4. Proper discontinuation of oxygen administrative.

__________5. Returning equipment to its normally transported combination.

Overall performance: superior__________adequate__________unsatisfactory___________

Time required to complete task: very little________moderate_______excessive________

Signature of evaluator ____

D. Cardiopulmonary resuscitation (on manikin)

I. Two EMT's per manikin. Each student should play both the cardiac and pulmonary roles.

a. Cardiac role

__________1. Proper placement of hands on sternum.

__________2. Proper positioning of resuscitar's body in relation to patient's during all phases of compression.

__________3. Acceptable rhythms.

__________4. Adequate compression.

__________5. Acceptable rate of compression.

Overall performance: superior__________adequate__________unsatisfactory___________

Time required to complete task: very little________moderate_______excessive________

Signature of evaluator ____

b. Pulmonary role

__________1. Clear airway obstruction

__________2. Proper positioning of head

__________3. Adequate seal around mouths.

b (continued)

__________4. Adequate volume of air.

__________5. Acceptable rhythm.

__________6. Acceptable rate of compression.

Overall performance: superior__________adequate__________unsatisfactory____________

Time required to complete tests: very little________moderate________execssive________

Signature of evaluator ____

II. One EMT performing cardiopulmonary resuscitation alone (manikin)

__________1. Adequate cardiac rate.

__________2. Adequate pulmonary rate.

Overall performance: superior__________adequate__________unsatisfactory____________

Time required to complete tests: very little________moderate_______excessive_________

Signature of evaluator ____

E. Determining blood pressure (Classmate as subject)

__________1. Proper placement of the cuff.

__________2. Proper inflation of the cuff.

__________3. Proper positioning of the stethoscope.

__________4. Accurate reading of systalic and diastolic pressures.

Overall performance: superior__________adequate__________unsatisfactory____________

Time required to complete tests: very little______moderate_______excessive_________

Signature of evaluator ____

Test 2: Performance Check Lists (Part I) Appendix C

Name of Student ______________________________

Place ____________________ Date ____________________

All procedures on this test are to be demonstrated using a classmate as the subject.

A. Top of head.

1._____Proper size dressing

2._____Adequate pressure on bandage.

3._____Proper use of adhesive tape (if used).

4._____Stability of dressing and bandage.

Overall performance: superior________adequate________unsatisfactory________

Time required to complete task: very little_____moderate_____excessive________

Signature of evaluator: ______________________________

B. Ear

1._____Proper size of dressing.

2._____Adequate pressure on bandage.

3._____Proper use of adhesive tape (if used)

4._____Stability of dressing and bandage.

Overall performance: superior________adequate________unsatisfactory________

Time required to complete task: very little_____moderate_____excessive________

Signature of evaluator: ______________________________

C. Cheek

1_____Proper size of dressing.

2_____Adequate pressure on bandage.

3_____Proper use of adhesive tape (if used)

4_____Stability of dressing and bandage.

Overall performance: superior________adequate________unsatisfactory________

Time required to complete task: very little_____moderate_____excessive________

Signature of evaluator: ______________________________

D. Eye with protruding eyeball.

1______Placement of protective covering around eye.

2______Placement of protective cup over eye.

3______Secure cup with bandage

4______Cover other eye with bandage.

5______Stability of entire Bandage.

Overall performance: superior________adequate__________unsatisfactory___________

Time required to complete task: very little______moderate________excessive________

Signature of evaluator____

E. Neck

1______Selection of proper dressing.

2______Adequate pressure on bandage.

3______No interference with respiration.

4______Proper use of adhesive tape (if used)

5______Stability of entire bandage.

Overall performance: superior_________adequate________unsatisfactory______________

Time required to complete task: very little_________moderate_________excessive_____

Signature of evaluator____

F. Shoulder or Hip

1______Proper size dressing.

2______Adequate pressure on bandage.

3______Shoulder or hip immobilized.

4______Proper use of adhesive tape (if used)

5______Stability of dressing bandage

Overall performance: superior___________adequate__________unsatisfactory_________

Time required to complete task: very little________moderate_________excessive_____

Signature of evaluator____

G. Sucking wound of the chest.

1______Diagnosis of wound.

2______Cover wound with plastic or foil.

3______Cover with a dressing.

4______Apply overlapping strips of adhesive tape so that a seal is formed (tape must be on patient's skin).

5______Stability of bandage.

Overall performance: superior__________ adequate__________ unsatisfactory__________

Time required to complete task: very little____________ moderate________ excessive___

Signature of evaluator: ____

H. Lower arm or lower leg

1______Proper size dressing.

2______Adequate pressure on bandage.

3______Proper use of adhesive tape (if used).

4______Stability of dressing and bandage.

Overall performance: superior__________ Adequate____________ unsatisfactory____________

Time required to complete task: very little________ moderate________ excessive__________

Signature of evaluator____

I. Hand

1______Proper size dressing.

2______Proper positioning of hand.

3______Immobilization of hand.

4______Adequate pressure on hand.

5______Stability of dressing.

Overall performance: superior__________ adequate____________ unsatisfactory______________

Time required to complete task: very little________ moderate________ excessive________

Signature of evaluator____

J. Knee or elbow

1______Proper size dressing.

2______Adequate pressure on bandage.

3______Knee or elbow immobilized.

4______Proper use of adhesive tape (if used).

5______Stability of dressing bandage.

Overall performance: superior________adequate__________unsatisfactory____________

Time required to complete task: very little________moderate_______excessive________

Signature of evaluator____

K. Foot

1______Proper size dressing.

2______Proper positioning of foot.

3______Immobilization of foot.

4______Adequate pressure on foot.

5______Stability of dressing.

Overall performance: superior__________adequate________unsatisfactory____________

Time required to complete task: very little________moderate _______unsatisfactory____

Signature of evaluator____

L. Jaw or nose

1______Proper zie dressing.

2______Adequate pressure on bandage.

3______Proper use of adhesive tape (if used).

4______Stability of dressing and bandage.

Overall performance: superior________adequate_______unsatisfactory_____________

Time required to complete task: very little_______moderate______unsatisfactory_____

Signature of evaluator____

Appendix C

Test 2: Performance Check Lists (Part II)

Name of Student______________________________

Place______________________Date______________

For items A through H, students should work in pairs.

A. Fracture of the ribs (using cravats)

1______applied over patients clothing.

2______tightened in expiration phase of breathing.

3______adequate pressure on ribs (neither too much or too little).

4______proper placement of arm.

Overall performance: superior______adequate______unsatisfactory______

Time required to complete task: very little______moderate______excessive______

Signature of evaluator:______________________________

B. Fracture of humerus (wood, wire, or cardboard splint)

1______choice of adequate splint.

2______pad the splint to avoid excessive pressures.

3______straighten angulation of injury.

4______stabilize the splint, but not to interfere with circulation.

5______immobilize joint above and below injury.

Overall performance: superior______adequate______unsatisfactory______

Time required to complete task: very little______moderate______excessive______

Signature of evaluator:______________________________

C. Fractured tibia (wood. wire or cardboard splint)

1_______Choice of adequate splint.

2_______Straighten angulation of injury.

3_______Pad the splint to avoid excessive pressures.

4_______Stabilize the splint, but not to interfere with circulation.

5_______Immobilize joint above and below injury.

Overall performance: superior_________adequate___________unsatisfactory_______________

Time required to complete task: very little_________moderate_________excessive________

Signature of evaluator:____

D. Fracture of the knee (wood, wire or cardboard splint)

1_______Choice of adequate splint.

2_______Pad splint to avoid excessive pressure.

3._______Do NOT straighten angulation.

4_______Stabilize the splint but do not interfere with circulation.

Overall performance: superior_______adequate__________unsatisfactory_________________

Time required to complete task: very little______moderate_________excessive__________

Signature of evaluator:____

E. Fracture of the clavicle (using cravats)

1_______apply a sling over patients clothing with the elbow bent.

2_______Place a swathe around the patient's body and arm immobilizing the arm on the injured side.

Overall performance: superior__________adequate___________unsatisfactory____________

Time required to complete task: very little_______moderate_______excessive_________

Signature of evaluator:____

F. Fracture of ulna (wood, wire or cardboard splint)

1_______choice of adequate splint.

2_______Straighten angulation of injury.

3_______Pad the splint to avoid excessive pressures.

4_______Stabilize the splint, but not to interfere with circulation.

5_______Immobilize joint above and below injury.

Overall performance: superior_________adequate___________unsatisfactory_______________

Time required to complete task: very little______moderate_____excessive_______________

Signature of evaluator:____

G. Dislocation of shoulder (assume anterior dislocation with considerable displacement of the arm).

1_______Choice of splinting material to immobilize arm in its position.

2_______Do NOT attempt to reduce the displacement.

3_______Bandage was to immobilize the arm.

Overall performance: superior________adequate__________unsatisfactory_________________

Time required to complete task: very little________moderate______excessive___________

Signature of evaluator:____

H. Fracture of the neck (assume airway is obstructed by patient's position).

1______Insure adequate airway (apply traction)

2______Choose adequate splinting material

3______Place backboard or other rigid material under patient.

4______Secure head to backboard using adequate padding.

Overall performance: superior_________adequate_________unsatisfactory_______________

Time required to complete task: very little_________moderate_________excessive_______

Signature of evaluator____

Note: For items I and J students should work in groups of three.

I. Fracture of femur (traction splint).

1_______place splint under leg using adequate padding.

2_______apply ankle hitch

3_______One person applies hand traction and other one applies traction from padding device.

4_______Place four or more cradle slings around leg and sling.

Overall performance: superior___________adequate____________unsatisfactory____________

Time required to complete task: very little__________moderate________excessive_________

Signature of evaluator:____

J. Fracture of femur (using board splint)

1_______Choice of adequate splint.

2_______Pad the splint to avoid excessive pressure.

3_______Straighten angulation of injury.

4_______Stabilize the splint, but not to interfere with circulation.

5_______Immobilize joint above and below injury.

Overall performance: superior__________adequate_________unsatisfactory_______________

Time required to complete task: very little________moderate________excessive_________

Signature of evaluator:____

Test 3 Performance Check Lists

A. Moving a supine patient with suspected cervical fracture from floor and immobilizing him on backboard. (3 students, one serving as patient).

1._______Restore airway

2._______Immobilize the neck using cervical collar or other available equipment

3._______Place backboard in proper position near patient.

4._______Properly pad backboard.

5._______Using two man lift place patient on backboard.

6._______Pad and secure neck to backboard.

7._______Adjust body pads and secure patient to backboard, making sure all are secure.

Overall performance: superior_______adequate_________unsatisfactory___________________

Time required to com plete task: very little_______moderate_______excessive___________

Signature of evaluator____

B. Move patient from a bed-height surface and secure him on a stretcher, carry the stretcher a short distance, and return patient to a bed-height surface.

1._______Position stretcher near bed.

2._______Prepare stretcher for patient (remove blankets, strips, etc., from area where patient will be placed).

3._______Use two man lift to stretcher.

4._______Strap patient to stretcher.

5._______Lift and carry stretcher in a coordinated manner.

6._______Lower stretcher to floor.

7._______Unstrap patient and using two man lift, place patient on bed-height surface.

Overall performance: superior_______Adequate__________Unsatisfactory__________________

Time required to complete task: very little________Moderate_______excessive__________

Signature of evaluator:____

C. Cardiopulmonary resuscitation (on manikin). The student is to perform cardiopulmonary resusitation alone on manikin. Separate check lists are provided for each role; however, performance is to be evaluated on the basis of the total efficiency of the student.

a. 1.______Proper placement of hands on sternum.

   2.______Proper positioning of resuscitator's body in relation to patient's, during all phases of compression.

   3.______Acceptable rhythms.

   4.______Adequate compression.

   5.______Acceptable rate of compression.

b. Pulmonary Role

   1.______Clear airway obstruction.

   2.______Proper positioning of head.

   3.______Adequate seal around mouths.

   4.______Adequate volume of air.

   5.______Acceptable rhythm.

   6.______Acceptable rate of compression.

________________Adequate cardiac and pulmonary integration first time

3 ventilations, 15 compressions, 2 ventilations, 15 compressions, 2 ventilations

Overall performance: superior___________adequate_________unsatisfactory___________

Time required to complete tests: very little_______moderate_________excessive______

Signature of evaluator____

D. Mobile cardio-pulmonary resuscitation (on manikin). "Patient" should be removed from bed-height surface and transported on a long backboard through some obstacles, preferably including a door, a narrow hall, and some steps.

1. Place patient on floor.
2. Two students begin CPR (on same side of patient).
3. Two students place backboard beside patient (These students on opposite side of patient from CPR team with backboard between them and patient.

4. Patient placed on backboard without interupting CPR.

5. Patient secured to backboard.

6. Patient carried on backboard with student carrying out cardiac compression, co-ordinating the movement.

Overall performance: superior__________adequate__________unsatisfactory__________

Time required to complete tests: very little________moderate________excessive________

Signature of evaluator______________________________

Test 4: Performance Check Lists

Name of Student ______________________________

Place ____________________ Date ____________________

A. Eye with protruding eyeball.

1. _____ Placement of protective covering around eye.
2. _____ Placement of protective cup over eye.
3. _____ Secure cup with bandage.
4. _____ Cover other eye with bandage.
5. _____ Stability of entire bandage.

Overall performance: Superior __________ Adequate __________ Unsatisfactory __________

Time required to complete task: very little _____ moderate _______ excessive ________

Signature of evaluator ______________________________

Skull Fracture

1. _____ Proper size dressing.
2. _____ Adequate pressure on bandage.
3. _____ Proper use of adhesive tape (if used).
4. _____ Stability of dressing and bandage.

Overall performance: Superior __________ Adequate __________ Unsatisfactory __________

Time required to complete task: very little ________ moderate ______ excessive ______

Signature of evaluator ______________________________

B. Forearm

1. _____ Proper size dressing.
2. _____ Adequate pressure on bandage.
3. _____ Proper use of adhesive tape (if used).
4. _____ Stability of dressing and bandage.

Overall performance: Superior __________ Adequate __________ Unsatisfactory __________

Time required to complete task: very little __________ moderate ________ excessive ___

Signature of evaluator ______________________________

Elbow

1. ____Proper size dressing.

2. ____Adequate pressure on bandage.

3. ____Knee or elbow immobilized.

4. ____Proper use of adhesive tape (if used).

5. ____Stability of dressing bandage

Overall performance: Superior ____________ Adequate __________ Unsatisfactory ____________

Time required to complete task: very little __________ moderate __________ excessive ______

Signature of evaluator ____

C. Fracture of humerus (wood, wire, or cardboard splint)

1. ____Choice of adequate splint.

2. ____Pad the splint to avoid excessive pressures.

3. ____Straighten angulation of injury.

4. ____Stabilize the splint, but not to interfere with circulation.

5. ____Immobilize joint above and below injury.

Overall performance: superior __________ adequate __________ Unsatisfactory ______________

Time required to complete task: very little __________ moderate __________ excessive ______

Signature of evaluator: ____

Fracture of ulna (wood, wire or cardboard splint).

1. ____Choice of adequate splint.

2. ____Straighten angulation of injury.

3. ____Pad the splint to avoid excessive pressures.

4. ____Stabilize the splint, but not to interfere with circulation.

5. ____Immobilize joint above and below injury.

Overall performance: Superior __________ Adequate ____________ Unsatisfactory __________

Time required to complete task: very little __________ moderate __________ excessive __________

Signature of evaluator: ____

D. For this item students are to work in groups of three with each student performing in all roles.

Fracture of femur (traction splint).

1._____Place splint under leg using adequate padding.

2._____Apply ankle hitch.

3._____One person applies hand traction and other one applies traction from padding device.

4._____Place four or more cradle slings around leg and sling.

Overall performance: Superior__________Adequate__________Unsatisfactory__________

Time required to complete task: very little_________moderate________excessive_______

Signature of evaluator:____

E. Operation of oxygen equipment. (classmate as subject).

1._____Set up equipment from normally transported condition.

2._____Proper adjustment of oxygen flow.

3._____Connection of face mask and proper application of mask to face.

4._____Proper discontinuation of oxygen administration.

5._____Returning equipment to its normally transported combination.

Overall performance:_Superior________Adequate__________Unsatisfactory_________________

Time required to complete task: very little_________moderate_______excessive_________

Signature of evaluator____

F. Cardippulmonary resuscitation (on manikin)

Two EMT's per manikin. Each student should play both the cardiac and pulmonary roles.

Cardiac

1._____Proper placement of hands on sternum.

2._____Proper positioning of resuscitator's body in relation to patient's during all phases of compression.

3._____Acceptable rhythms.

4._____Adequate compression.

5._____Acceptable rate of compression.

F. continued.

Overall performance: Superior_________Adequate___________Unsatisfactory________________

Time required to complete task: very little_________moderate________excessive_________

Signature of evaluator____

G. Pulmonary

1._____Clear airway obstruction.

2._____Proper positioning of head.

3._____Adequate seal around mouths.

4._____Adequate volume of air.

5._____Acceptable rhythm.

6._____Acceptable rate of compression.

Overall performance: Superior_________Adequate____________Unsatisfactory______________

Time required to complete tests: very little________moderate________excessive_________

Signature of evaluator____

H. Examination: Note: The student is to examine a patient (manikin) for life threatening problems as well as injuries. Each of the points should be covered but not necessarily in this order.

1._____Airway obstruction.

2._____Adequate breathing.

3._____Pulse.

4._____Bleeding (external).

5._____Fractures (neck and spinal column first).

6._____Other fractures.

7._____Internal Bleeding.

Overall performance: Superior____________Adequate__________Unsatisfactory________________

Time required to complete tests: very little________moderate_________excessive___________

Signature of evaluator____

I. Move patient from a bed-height surface and secure him on a stretcher, carry the stretcher a short distance, and return patient to a bed-height surface.

1._____Position stretcher near bed.

2._____Prepare stretcher for patient (remove blankets, clips, etc., from area where patient will be placed).

3._____Use two man lift to stretcher.

4._____Strap patient to stretcher.

Overall performance: Superior________ Adequate_________ Unsatisfactory__________

Time required to complete task: Very little___________ Moderate_________ Excessiv

Signature of evaluator______________________________

J. Immobilization on short backboard. (Student should work in groups of three with patient seated on chair).

1._____Insure adequate airway.

2._____Ready backboard and other materials.

3._____Apply cervical collar (may use universal dressing).

4._____Place backboard behind patient (one student supports head).

5._____Secure patient's head to backboard.

6._____Secure patient's chest to backboard.

K. Moving a supine patient with suspected cervical fracture from floor and immobilizing him on long backboard.

1._____Restore airway.

2._____Immobilize the neck using cervical collar or other available equipment.

3._____Place backboard in proper position near patient.

4._____Properly pad backboard.

5._____Using two man lift place patient on backboard.

6._____Pad and secure neck to backboard.

7._____Adjust body pads and secure patient to backboard, making sure all are secure.

Overall performance: Superior_______ Adequate________ Unsatisfactory______________

Time required to complete task: Very little_______ Moderate_____ Excessive_________

Signature of evaluator______________________________

L. Determining blood pressure (Classmate as subject).

1._____Proper placement of the cuff.

2._____Proper inflation of the cuff.

3._____Proper positioning of the stethoscope.

4._____Accurate reading of systalic and diastolic pressures.

Overall performance: Superior__________Adequate____________Unsatisfactory___________

Time required to complete tests: Very little_______Moderate_________Excessive_______

Signature of evaluator____

SCORING OF PERFORMANCE CHECK LIST

Superior Overall Performance = 2 points

Adequate Overall Performance = 1 point

Unsatisfactory Overall Performance = 0 points

An adequate score on each test would be half of the possible score.

	Possible Score	Passing Score
Test I	14	7
Test II (Parts 1 & 2)	44	22
Test III	30	15
Test IV	28	14
Cumulative Scores of all performance evaluation	94	47

* Each student must have a cumulative passing score on the performance evaluation to satisfactorily complete the course.

* Each student must have a minimum score of 70% on the standardized 100 item taped written test to satisfactorily complete the course.

Appendix G

EMT: Comprehensive Test

Directions: The following questions are all multiple choice. Indicate your answer by marking the correct answer on the answer sheet. Each question has one best or correct answer so you should mark only one answer. If you make a mistake, erase your first answer as any question with more than one mark will be counted wrong. If you are not sure of the answer to a question, guess - your score will be the number you get correct.

In several questions the letters EMT are used. These always stand for Emergency Medical Technician.

Name ________________________________

Date ________________________________

Location ______________________________

Prepared for South Carolina
Hospital Association by
Carl N. Shaw

Appendix G

Answer Sheet - South Carolina Emergency Medical Technician Training Program

1. ______
2. ______
3. ______
4. ______
5. ______
6. ______
7. ______
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91. ______
92. ______
93. ______
94. ______
95. ______
96. ______
97. ______
98. ______
99. ______
100. ______

Name ____ No. _____

LESSON 5A

CARDIOPULMONARY RESUSCITATION

DURING TRANSPORTATION, INCLUDING LOADING PROCEDURES

Objectives

Develop skills in performance of Cardiopulmonary Resuscitation during loading and unloading for transportation.

- Overcoming doorway and elevator obstacles
- Procedure for CPR on stairway
- Uninterrupted CPR techniques on litter stretcher
- Uninterrupted CPR techniques on ambulance stretcher with wheels
- Procedure for ambulance loading and unloading
- Procedure for CPR in transit

REQUIREMENTS

Number of Instructors

One instructor for each ten students (the instructor will have to enlist the aid of four students to demonstrate proper loading and unloading procedures)

Material, Equipment

- One long spineboard per ten students (See Handout A)
- One Ambulance stretcher with wheels per ten students
- One ambulance per twenty students
- One hose connection
- One Resusci Anne filled with water per ten students
- One Blanket per ten students

Charts, Slides and Visual Aids

- "Loading and Unloading Procedures" - Slide Set, South Carolina Heart Association
- Loading Procedures Diagram (Handout A)
- Slide Projector and Screen

Instructor References

- "Cardiopulmonary Resuscitation during transportation, including Loading Procedures" - Manual, South Carolina Heart Association
- "Cardiopulmonary Resuscitation Conference Proceedings" (EM 44C) - American Heart Association

Time (Elapsed) actual

Activity

Instructor Notes and Visual Aids

1. Take attendance
2. Make announcements
3. Pass out any literature appropriate
4. Make sure all equipment is in place and in working order, prior to session.

Lesson Objectives in Loading Procedures

1. Explain that this lesson is designed to teach a method of transporting a CPR victim with only a minimum of interruption.
2. Emphasize that speed in loading is secondary to uninterrupted CPR, provided that adequate compression and mouth to mouth ventilation can be maintained.

Lesson Plan

1. Select four students to help with the demonstration.

2. Point out to class that they should observe closely and follow along with the handout.

3. Carefully instruct procedure in accordance with Manual on "Cardiopulmonary Resuscitation during Transportation, including Loading Procedures"

4. Show slides

5. Have students perform demonstration position by position (Instructor should describe procedure)

6. Make special notation to students that the victim and backboard should be loaded onto the floor of the emergency vehicle, leaving the stretcher out, if the vehicle roof height does not permit adequate room for proper CPR measures.

7. Follow the same positions with reverse procedures for unloading.

8. Practice procedures with remainder of group.

9. Discuss innovations, including blanket drag, procedures for passing through a doorway and down or up a stairway.

Appendix I

EMERGENCY MEDICAL TECHNICIANS

IN-HOSPITAL EXPERIENCE RECORD

____ Hospital

Name of Student ____________________________________

Location of EMT Course ______________________________

Date	Number	Signature of Head Nurse on Duty

APPENDIX G

A REPORT ON EXIT TRAINING UNDER TWO METHODS OF INSTRUCTION

A REPORT ON EMT TRAINING UNDER TWO METHODS OF INSTRUCTION

With recommendations on the selection of future trainees and achievement testing.

Robert L. Brown, Ph.D.
Psychologist
June 28, 1972

The emergency medical service technicians play a critical role in the conservation of human lives. Their training, however, has ranged from very minimal to excellent. In South Carolina, a law was passed to certify emergency medical technicians who successfully completed a given level of training and thus upgrade this part of health services.

The training of emergency medical technicians in South Carolina posed several problems.

1. The expense of training EMT personnel through the use of physicians and other health specialists;
2. The difficulty in coordinating instructions involving the utilization of outside specialists; and,
3. The lack of standardization of instructions among the various classes.

A possible solution to this problem appeared to be the utilization of video-tape instructions for those portions requiring physicians or other highly specialized health personnel as instructors. The major question to be answered involved the effectiveness of training with live instructors versus video-tape instruction. Is learning as effective with video tape instruction as it is with live instruction? The answer to this question could, of necessity, involve the question of the skills of the live instructors as well as the quality of the instructional material prepared for and captured on video-tape.

Under a HEW grant the South Carolina Hospital Association conducted a demonstration and developmental project in an attempt to answer this question and to solve some of the problems associated with the training of emergency medical service technicians. The general design called for the organization and coordiantion of training activities in each of the ten health planning districts in the State of South Carolina beginning with July, 1971, and ending with June, 1972. Some of the classes were to be conducted with the aid of physicians and other highly specialized health personnel while others were to utilize video-tapes prepared by the South Carolina Hospital Association and South Carolina's Educational Television. All classes utilized the same curriculum with the same formal hours of instruction and skill practice sessions. However, each class had a different coordinator and live instructors with differing skills and procedures in instructing.

Enrollment in the classes was on a voluntary basis. However, preference was given to individuals presently employed by ambulance services and hospitals with second preference going to members of voluntary rescue squads and then to policemen and firemen.

At the beginning of the project there were no standardized achievement tests available. The proposed plan called for achievement testing at four intervals during the course with the fourth test being a comprehensive one covering the entire course material. This fourth test was to be administered before training began and the scores used as an indication of aptitude with the same test administered at the end as an indication of achievement. A fifty-five multiple choice item test initially utilized for this purpose proved to be totally inadequate. It was judged from an item analysis utilizing members of the first two classes and employees of a large ambulance service who were reportedly very well trained. Additional items were written and subsequently utilized in a 100-item test that was given both before training and at the end of the course. Tests 1, 2, and 3, given during the course, were each 30-item multiple choice type question tests.

In addition to the pre-tests as a measure of aptitude, each enrollee was requested, during the first class period, to provide additional information by responding to the following:

1. The Test of Awareness. This is a short untimed intelligence test on which the error score is converted into an I. Q. as a measure of functional intelligence, characterized by awareness, alertness, and mental flexibility. This test is published and distributed by Brown & Associates of Greenville, S. C.
2. A 20-item Terminology Test was developed using terms needed by emergency medical technicians in filing their reports. The respondent was asked simply to indicate in a few words what is meant by each term. The scoring was done on a pass or fail basis with one point being given for each term for which there was a response indicating any correct insight or familiarity regardless of the quality of the response.
3. The 16 PF. This is a factored test covering 16 behavioral characteristics. This is Form A of a 1967-68 Edition published by the Institute for Personality and Ability Testing, Champaign, Illinois.

4. HTP. This is a simple projective technique in which the individual is asked to draw, on a clean sheet of paper, a house, a tree, and a whole person. It is a clinical diagnostic aid and was included in the pretesting as a back-up source of information in the event that the 16-PF was not completed by a significant number of the enrollees.
5. A 73-item Biographical Form was developed and utilized for obtaining a variety of biographical data which might be of value in equating groups of explaining differences in achievement.

RESULTS

A total of 483 persons were enrolled in eleven classes for EMT training. Five of the classes utilized live instruction while six utilized video-tape for those portions generally requiring a physician or highly skilled health service technician. There were seventy drop-outs during the course giving an 85.5% retention. Of those staying through the complete course, twenty-five failed to accumulate the necessary achievement score for passing the course and were judged as failures. Three hundred and eighty eight or 80.3% of the enrollees graduated and were awarded certificates. As indicated earlier, the achievement score was based on the cumulative score over four tests. The first three contained thirty items each and the last or fourth test contained one hundred items for a possible score of 190. Since these tests were not standardized and the Advisory Board felt it was unnecessary to be arbitrarily strict in setting standards, they advised that a passing mark should be more than 65% of the items answered correctly. Consequently, the cut-off point for pass and fail was established between a cumulative score of 125 and 126.

Table 1 shows the numbers of individuals participating in the various EMT training classes. These are designated by health planning district numbers with the numbers enrolled, the number of drop-outs, the number of failures, and the number of graduates. It will be noted that in Table 1 a larger percentage of drop-outs accurred among the classes with live instruction while a larger percentage of failures occurred in those utilizing video-tape. These percentages are presented in Table 2. A statistical analysis of these differences, however, fails to show them as being significant differences; i.e., Chi Squared values greater than those observed would occur by chance alone in one out of twenty observations; consequently, it may be assumed that the differences observed here are indeed chance differences and that the method of instruction has not significantly affected either the drop-out rate or the failure rate. The live instruction classes produced 79.2 percent graduates while the taped instructions produced 81.3 percent graduates. This 2.1 percent difference is judged statistically to be a chance difference.

The big question relates, however, to achievement test scores as a measure of learning effectiveness. Table 3 contains a listing of classes with the means and standard deviations for the cumulative achievement test scores. It will

TABLE I

PARTICIPATION IN EMT TRAINING

GROUP	ENROLLED	DROP-OUTS	FAILURES	GRADUATES
#2	46	5	0	41
#3	39	2	1	36
#7	36	10	0	26
#7E*	48	8	2	38
#9	57	15	4	38
Total "Live"	226	40	7	179
#1	46	7	3	36
#4	49	3	0	46
#5	47	3	5	39
#6	46	3	2	41
#8	33	7	2	24
#10	36	7	6	23
Total "Tape"	257	30	18	209
Grand Total	483	70	25	388

*Extra Group

TABLE 2

PERCENTS BY METHOD OF INSTRUCTION

METHOD OF INSTRUCTION	ENROLLED	DROP-OUTS	FAILURES	GRADUATES
Live (N=226)	100	17.7	3.1	79.2
Live & Tape (N=257)	100	11.7	7.0	81.3
Total (N=483)	100	14.5	5.2	80.3
Chi Squared		3.53	3.11	0.34

A Chi squared value of 3.841 will occur by chance 5 times in 100. Therefore, the differences observed are attributed to chance.

TABLE 3

EMT ACHIEVEMENT TEST SCORES

GROUP	N	MEAN	STD. DEV.
#2	41	157.71	8.52
#3	37	154.16	13.71
#7	26	149.96	11.92
#7E	40	152.52	12.99
#9	42	148.65	16.98
Total "Live"	186	152.76	13.62
#1	39	148.82	14.98
#4	46	158.30	13.45
#5	44	145.61	21.85
#6	43	158.51	15.84
#8	26	150.77	16.45
#10	29	145.79	29.70
Total "Tape"	227	151.79	19.74
GRAND TOTAL	413	152.23	17.26

be noted here that the difference between the average achievement test score and the live and taped groups is less than one point and in view of the standard deviations may be judged to be identical. (t=0.67 with 411 degrees of freedom). It could be concluded at this point that learning effectiveness is as great with the use of the video-tapes as with the live instructors. This would assume, however, that the groups were equally matched in terms of aptitudes for learning. A double-cross validation of the predictors that might be utilized in predicting the achievement score was made within the live group as well as within the video-tape group. These predictors included the I. Q., the Terminology Test score, the 16 PF scores, and the seventy three items from the Biographical Data. Only the I. Q. and the Terminology survived the double-cross validation technique. The regression equations for these two predictors were almost identical and were averaged to the equation Y=69 + .7 times I. Q. + 1.84 times terminology. The resulting average aptitude for learning scores are reported by classes and groups in Table 4. The 2.79 difference (t=1.47) is not statistically significant and the two groups may be judged as comparable in terms of aptitudes for learning.

This finding of no difference in aptitude for learning supports the initial finding of no difference in achievement. However, there is one other set of indication in the form of the pre-test and post-test. Without these one might question whether or not any learning had indeed taken place in either group.

TABLE 4

EMT APTITUDE FOR TRAINING SCORES AND CORRELATIONS WITH ACHIEVEMENT

GROUP	NUMBER	MEAN SCORE	STANDARD DEVIATION	CORRELATION WITH ACHIEVEMENT
#2	41	142.67	15.82	.523
#3	37	153.16	19.21	.661
#7	26	148.04	17.13	.769
#7E	40	153.18	18.50	.595
#9	42	156.00	18.35	.659
Total "Live"	186	150.78	18.64	.282
#1	39	144.46	17.78	.690
#4	46	161.67	18.55	.642
#5	44	148.39	21.64	.639
#6	43	156.42	16.88	.665
#8	26	149.85	15.86	.718
#10	29	159.90	20.22	[illegible]
Total "Tape"	227	153.57	19.77	.262
GRAND TOTAL	413	152.31	19.32	.206

TABLE 5

DIFFERENCES IN MEAN SCORES FOR APTITUDE AND ACHIEVEMENT WITH TEST OF SIGNIFICANCE

GROUP	DIFFERENCE*	"T"	SIGNIFICANCE
#2	15.04	5.29	beyond .01
#3	1.00	.25	NS
#7	1.92	.46	NS
#7E	-0.66	.18	NS
#9	-7.35	1.86	NS
Total "Live"	1.98	1.17	NS
#1	4.36	1.16	NS
#4	-3.37	.99	NS
#5	-2.78	.59	NS
#6	2.09	.59	NS
#8	0.92	.20	NS
#10	-14.11	2.08	beyond .05
Total "Tape"	-1.78	1.14	NS
GRAND TOTAL	-0.07	0.06	NS

*Achievement - Aptitude

TABLE 6

EMT PRE-TEST AND POST-TEST SCORES WITH INTERCORRELATION

GROUP	NUMBER	PRE-TEST	POST-TEST	COR.
#2 *				
#3	37	60.24	81.68	
		14.33	7.24	.467
#7	26	53.54	83.23	
		14.76	6.39	.728
#7E*				
#9	42	64.57	81.48	
		13.93	9.63	.691
Total "Live"	105	60.31	81.98	
		14.92	8.14	.364
#1	39	56.77	83.00	
		13.61	7.00	.607
#4	46	69.54	85.57	
		13.87	7.48	.599
#5	44	54.57	78.20	
		14.36	10.95	.532
#6	43	65.81	86.72	
		13.07	8.43	.653
#8	26	59.38	82.23	
		12.64	8.29	.529
#10	29	62.24	79.07	
		16.67	14.71	.868
Total "Tape"	227	61.64	82.70	
		15.08	10.12	.253
GRAND TOTAL	332	61.22	82.48	
		15.04	9.54	.208

*Comparable pre-test scores not available

As indicated earlier, the pretesting administered to the first two classes was quite inadequate and consequently two of the five classes in the live instruction group are without comparable pretest scores. However, Table 6 shows a comparison of pre-test and post-test scores - these being identical test items for the remaining three live classes and the six taped classes. The pre-test scores show no significant differences and neither do the post-test scores show a significant difference betwen the live and taped groups. The difference between pre-test scores was 1.33 which gives a t = .750 and is not significant. The difference in post-test scores was 0.72 which yields a t=.690 and is not significant. Again, no difference is observed between the live and taped methods of instruction.

Did learning occur? There was an average gain of 21.67 points between pre- and post-tests for the live groups and an average gain of 21.06 points for the taped groups. This gain is highly significant. t values of 13.00 and 17.43 were observed respectively for the live and taped groups, indicating that significant learning did take place during the course of training and that the video-taped classes did as well as those with live instructors. The practical advantage of this can be evaluated in terms of cost and difficulty in coordination of training involving the scheduling of personnel.

So far it can be concluded that learning of the type measured by achievement tests occurs equally well under the live and video-taped conditions. What about performance skill? Is there a difference in the effectiveness of learning to handle the patient and equipment?

There really is no reason for assuming there will be a difference in performance skills since that part of the instruction remained the same for the two instruction methods.

Table 7 shows the means and standard deviation for the performance ratings. A difference between the group means of 0.59 is not significant (t = .61).

The performance rating was obtained by giving one point for satisfactory and two points for excellent performance. The rater, of course, influences this score in terms of his own inclination to be strict or lenient in his judgment. In spite of this the rating in all but two classes shows significant relationship to achievement test scores as well as to aptitudes.

SUMMARY

The training of EMT personnel is expensive and presents problems in coordination when physicians and other highly trained health service personnel are employed. If EMT training can be done as effectively with video-taped instruction on those portions requiring outside resources personnel, the problem would be simplified. This study is aimed at an evaluation of learning effectiveness under the two methods of instruction.

Based on eleven classes with a total of 413 students completing the training, it has been shown that:

TABLE 7

		PERFORMANCE RATING		CORRELATIONS WITH	
GROUP	NO.	MEAN	SIGN.	ACHIEVEMENT	APTITUDE
#2	41	72.5	6.57	.251	.548**
#3	37	71.9	5.66	-.023	.179
#7	26	81.0	5.51	.540**	.607**
#7E	40	79.9	12.56	.668**	.550**
#9	42	74.8	9.38	.512**	.524**
Total "Live"	186	75.7	9.33	.239**	.218**
#1	39	81.1	6.80	.449**	.441**
#4	46	84.3	3.54	.319*	.386**
#5	44	73.2	8.97	.817**	.427**
#6	43	67.2	8.07	.643**	.527**
#8	26	79.7	6.16	.515**	.256
#10	29	63.0	5.44	.652**	.713**
Total "Tape"	227	75.11	10.17	.192**	.128*
GRAND TOTAL	413	75.36	9.81	.149**	.117*

* 95% confidence level

**99% confidence level

1) The groups were equal in terms of aptitudes indicated by intelligence and familiarity with medical terminology.
2) The groups were equal in terms of aptitudes as indicated by a pre-test of knowledge.
3) Significant learning took place under both methods of instruction as indicated by the difference in pre-test and post-test scores.
4) There were no significant differences observed in post-test scores, total achievement scores, or performance ratings.

It may therefore be concluded that learning effectiveness is as great with the set of video-tapes used as with the live instructors used in these classes.

Aptitudes for learning are significant predictors of achievement under standardized conditions (within classes). However, the whole class average may be influenced up or down as a result of motivation, the thoroughness of coaching, and other factors. Table 4 shows the consistently high correlations between aptitudes and achievement within classes (average .68). However, these relationships dropped considerably across classes and conditions (r = .206). Some of this may be due to chance differences but, as can be seen in table 5, two classes showed significant group deviations from the expected or predicted. In the one case of over-achievement, it is known that a considerable amount of extra coaching was done in order to assure that everyone passed the course.

In the case of significant under-achievement, it will be noted that the range of achievement scores was very large (s = 29.7) and that there were a large number of failures (6 out of 29).

These observations raise the question as to whether or not achievement in EMT training can be predicted. Can those individuals who fail be identified before being admitted to training? This is the subject of the next report.

PREDICTING SUCCESS IN EMT TRAINING

Is it possible to predict who will and who will not successfully complete the EMT training?

As previously indicated, there are factors such as individual motivation, special coaching and other conditions which are not predictable on an individual basis. It has also been pointed out the biographical and personality factors failed to hold up in a cross-validation attempt. There were some promising items such as: one's education; the educational level of one's father and mother; the population of the community in which one lives; and, the number of hours spent per day watching television. However, in each case, these showed a higher relationship with I. Q. and the Terminology Test scores than with achievement. Thus, they added nothing to the prediction.

An attempt was made to pull out certain identifiable groups such as male - female, whites - non-whites, ambulance and hospital associated personnel versus others. No differences were found between ambulance and hospital associated personnel and others. Females were slightly higher on achievement test scores but were also higher on familiarity with terminology as indicated by the test scores. Whites scored slightly higher on the I. Q. test and on the Terminology but even higher on achievement. An examination showed that this could be attributed to a number of non-whites with borderline intelligence and questionable literacy. The highest achievement test score made was made by a black man, however, and a white man made the lowest score. Some of these characteristics are presented in Table 8.

Familiarity with medical terminology and I. Q. as measured by the Test of Awareness seem to be our best indicators of achievement in the EMT training classes.

The I. Q. for the group was found to be 98.7 with a standard deviation of 14.1.

The average Terminology Test score was 7.8 with a standard deviation of 6.04. With an intercorrelation of .74, I. Q. correlated .63 and .39 respectively with achievement and performance rating; while terminology correlated .69 and .44 with achievement and performance.

Before proceeding with a methodology for predicting success, an examination of the revision of the achievement test seems in order

TABLE 8

SOME CHARACTERISTICS OF EMT STUDENTS AND THEIR CORRELATIONS

N = 413

			CORRELATIONS WITH			
CHARACTERISTICS	MEAN	STD.DEV.	I.Q.	TERM.	ACH.	REVISED*
AGE	33.3	11.41	-.097	-.001	-.005	-.003
MALE	89.3	29.8	-.030	-.176**	-.104*	-.073
WHITE	89.7	30.0	.132**	.114*	.249**	.230**
EDUCATION	11.36	2.00	.386*	.370*	.293*	.304**
(AMB. & HOSP.)	52.2	49.9	-.096	.023	.043	.074

* 95% coefficient level

**99% coefficient level

REVISED EMT ACHIEVEMENT TEST

The EMT students were given four tests during the course of training. These tests contained 190 items. However, 38 of the items appeared twice and one could not be scored because there was no correct answer. These 151 items were subjected to analysis.

CRITERIA FOR ITEM SELECTION

The selection of items was made on the following basis:

1) It must be difficult enough so that some students will miss it;
2) It must show a relationship to some external measure; and,
3) It must show a significant relationship with the other items in the test.

PROCEDURE

Two groups of 60 sets of tests were selected from the high and low performances in the EMT classes. Each item was correlated with each of six criteria.

1. Learning = percent improvement between pre-test and post-test.
2. Performance ratings given by instructors on skills demonstrations exercises.
3. Post-tests = Scores of all test scores following instruction
4. Pre-test = A test consisting of 100 of the items was administered prior to instructions. This is the pre-test score.
5. Terminology = Scores on a 20 item test designed to measure familiarity with medical terminology.

6. I. Q. = Intelligence quotient as measured by the Test of Awareness.

RESULTS

The best 100 items were selected according to the criteria already stated. The remaining 51 items were either too easy or show no significant relationship with any of the external measures 1 - 7.

The 100 items selected show the following characteristics:

	MEAN	STD.DEV.
Average item difficulty	75.8	11.8
Average correlation coefficient for item and:		
Learning	30.5	10.5
Performance	30.7	10.5
Post-Test	44.3	10.6
Pre-Test	37.6	10.2
Terminology	36.8	10.4
I. Q.	33.1	12.3

A total of 336 of the achievement tests were re-scored according to the 100 new item key. The median score was found to be 81.3 with a range from 22 to 99.

Norms are presented for future use as a test of achievement. The test items are being put on video-tape for use as a final exam.

It is recommended that a 70 be required in the future as a passing score. This recommendation is based on the data presented in tables 9 and 10 which show the relationship between revised achievement test scores and the prediction of I. Q. and Terminology Test scores.

TABLE 9

PERCENT SCORING AT OR ABOVE INDICATED SCORE WITH I.Q.'s IN SIX RANGES

		REVISED ACHIEVEMENT TEST SCORES		
I. Q.	NO.	65+	70+	80+
120+	24	100%	100%	92%
110-119	59	100%	98%	88%
100-109	70	96%	93%	64%
90-99	73	93%	85%	49%
80-89	80	86%	70%	39%
-79	30	53%	33%	0%
TOTAL	330	90%	82%	55%

TABLE 10

PERCENT SCORING AT OR ABOVE INDICATED SCORE FOR FOUR RANGES OF SCORES ON TERMINOLOGY TEST

TERMINOLOGY TEST SCORES	NO.	REVISED ACHIEVEMENT TEST SCORES 65+	70+	80+
16-20	58	100%	100%	97%
11-15	71	99%	97%	83%
6-10	94	94%	84%	56%
0-5	113	76%	60%	17%
TOTAL	336	90%	82%	55%

With the pass-fail standard set for these EMT Classes, 6% failed to meet the standard. With 33% falling within the low average and borderline range of intelligence, this does little to upgrade the EMT position. Had we been using the revised achievement test and required 70 as passing, 18% would have failed. This failure rate seems too high for the cost involved in training even with video-tapes.

Suppose we had pre-screened the applicants and not admitted anyone in the 90-99 I. Q. range unless he scored 6 or more on Terminology. In the 80-89 range we could have required a score of 11 on Terminology or below 79 a score of 16+. There is not too much one can do about his I. Q. but he can familiarize himself with medical terminology in order to improve his chances of passing the EMT Course. Had we done this and selected only those who met these standards -

5% would have scored below 70
25% would have scored below 80
70% would have scored below 90.

Of those not accepted, had they been accepted -

40% would have scored below 70
77% would have scored below 80
98% would have scored below 90
90% would have scored below average for the selected group.

The selected group would have shown a median score of 85.5 with 79 as the 25th percentile and 90 as the 75th percentile.

The unselected group would have produced a median score of 71.7 with 63 as the 25th percentile and 78.5 as the 75th percentile.

The average for the selected and non-selected groups are as follows:

GROUP	N	AVERAGE I. Q.	AVERAGE TERM. SCORE
Selected	210	107.5	11.6
Non-Selected	126	84.6	3.7
Total	336	98.7	7.8

These norms for the proposed selected and non-selected groups are presented in the following table as support for the prediction and selection of EMT trainees.

NORMS FOR THE REVISED EMT ACHIEVEMENT TEST WITH NORMS FOR SELECTED AND NOT SELECTED GROUPS

TEST SCORE	NOT SELECTED	SELECTED	TOTAL
N	126	210	336
98		99	
97		98	99
96		97	98
95		94	96
94		91	94
93		87	92
92		84	90
91		80	87
90	99	75	84
89	98	70	81
88	96	67	78
87	94	60	73
86	93	54	68
85	90	46	63
84	90	44	61
83	87	40	58
82	82	35	53
81	80	30	49
80	78	27	46
79	77	25	44
78	72	21	40
77	70	18	37
76	68	15	35
75	66	14	33
74	61	10	29
73	57	8	26
72	52	7	24
71	46	7	21
70	42	6	19
69	40	5	18
68	38	4	17
67	34	4	15
66	30	3	13
65	28	3	12
64	26	2	11
63	25	2	10
62	23	2	10
61	21	2	9
60	19	2	8
59	18	2	8
58	16	1	7
57	16		6
56	14		5
55	13		4
52	10		4
48	8		3
41	6		2
30	2		1

APPENDIX H

NEWSPAPER COVERAGE (SAMPLE PUBLICITY)

— EMT Steering Committee Organization
Nurse Coordinator, two teacher assistants, chairman of steering committee

NEWSPAPER PHOTO COVERAGE

— Emergency preparation in extrication practice

— Students practice extrication from wrecked vehicle

— Practice of CPR in loading procedure

— Instructors prepare for class using videotapes

Emergency Medical Technician Project Launched

A steering committee meeting of the Emergency Medical Technician (EMT) Project for Beaufort, Jasper, Hampton and Colleton Counties was held last week at the Beaufort Regional Technical Center.

The purpose of the committee explained Mrs. Kathie Lawrence who serves as nurse coordinator of EMT, is to impliment a program to train emergency medical service personnel to administer prompt and efficient care of accident victims or other patients prior to and during transportation to the hospital.

The special courses will be offered to ambulance drivers, policemen, firemen and others who would most likely become involved with accident victims.

The program is sponsored by the South Carolina Hospital Association in cooperation with the State Department of Vocational Education the State Committee on Trauma, State Committee on Technical Education, State Heart Association and the South Carolina ETV network.

A film, "Before The Emergency," was shown to the committee members followed by a discussion of the ambulance bill, the role of the emergency medical technician and other phases of the program.

Dr. R. G. Price of Beaufort serves as chairman of the steering committee and Carol Latimer is the EMT coordinator for district 10. Teacher assistants are Mills Black of Beaufort and HM1 John H. Moffett, who is stationed at the U.S. Naval Hospital here.

Spartanburg Tec Graduates Students In EMT Program

Graduation services were held at Spartanburg County Technical Education Center for more than 38 students completing the Emergency Medical Training (EMT) program.

Those participating in the assemblies were Capt. J. M. Waters, founder of the EMT program in Jacksonville, Fla., Mrs. Gladys Hudgens, TEC instructor, Mr. Larry Dozier, assistant administrator, Spartanburg General Hospital and Carol Latimore, state wide coordinator for EMT sponsored by the South Carolina Hospital Association.

Participating in the 87 hour course were persons working in ambulance or emergency vehicle units from counties surrounding and including Spartanburg.

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41 To Receive Certificates At Greenwood Ceremonies

Greenwood Bureau

GREENWOOD — Graduation exercises will be held at Greenwood High School Monday at 7:30 p.m. for 41 persons who have completed a course in training for emergency medical technicians.

The graduates are from Greenwood and surrounding areas. The course here is the first in the state to be completed.

A new state law which goes into effect in July, 1972, will require similar training for all ambulance services. The graduates will receive certification.

The course consists of 84 hours of classes, two nights per week. ~~Mrs. Virginia~~ Eck, nursing supervisor at Self Memorial Hospital here, was coordinator of the course. The course was taught by Bill Crisp of Self Memorial.

Sen. John Drummond will speak during graduation exercises.

Ambulance Staff Members Finish Training Course

Eight employees of Newberry County Memorial Hospital recently completed an Emergency Medical Technician training course at the hospital. They expect to receive their E.M.T. certificates soon.

The E.M.T. course, involving about 84 hours of instruction, has been completed by ambulance supervisor Randy Graham, Chief Orderly J. W. Cook and six other orderlies: Harold Long, Steve Wicker, Ray Matthews, Kenneth Harmon, Charlie Epps and Randy M. Bickley.

"We feel our present ambulance attendants are as well trained as any in South Carolina," said Hospital Administrator Lawrence Richardson, "whether it be a highway or home accident or cardiac arrest."

Richardson said further courses probably will be offered from time to time as new employees are added.

The text used for the instruction was "Emergency Care and Treatment of the Sick and Injured."

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24 Receive Emergency Training

BY ELEANOR FOXWORTH

KINGSTREE — Residents in the Kingstree, Georgetown, Andrews and Lake City areas needing ambulance and rescue squad service will have 24 more certified emergency medical technicians assisting them because of a recently-completed course in emergency medical technician training certified by the S. C. State Board of Health.

The course was designed for ambulance and rescue squad employees in the Waccamaw District, which includes the three counties of Williamsburg, Horry and Georgetown.

The six sponsoring groups of the course were the following: S. C. Hospital Association, S. C. Heart Association, State Committee on Trauma, Williamsburg County Memorial Hospital, Georgetown County Memorial Hospital, and the Williamsburg Regional Manpower Training Center.

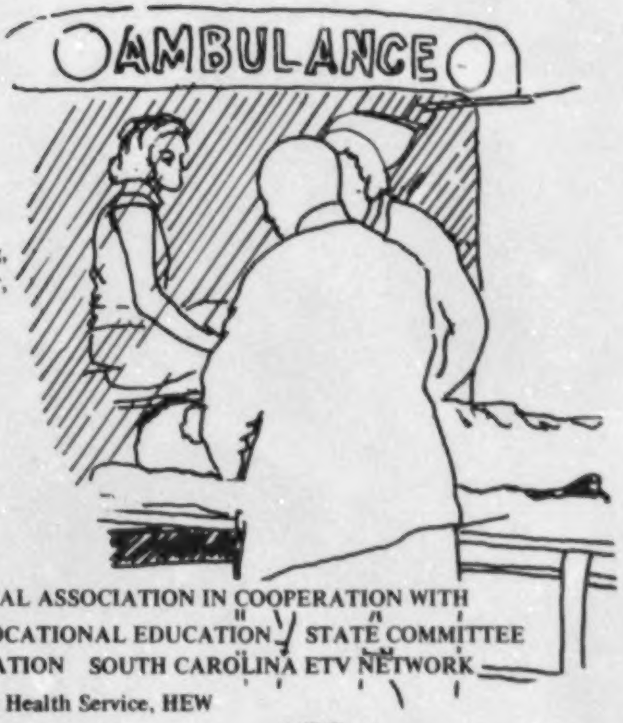
"This is just the beginning of courses we plan to have to upgrade the health measures in our area," said Mrs. Purcell, who is assistant director of nurses at the Williamsburg County Memorial Hospital. "Advanced courses for emergency medical technicians will be next," she said.

Graduates of the first course include: Josie Boatwright, William L. Broach, Howard B. Brown, John O. Carter, Jr., Danny Cook, Benjamin F. Dunn, Betty Eaddy, Margarett Epps, John Milton Gainey, Dargan C. Haddock, Thelma C. Haddock, Lawrence E. Howard, D. Ryan Hurst, Richard C. Matthews, John Thomas Morris, Walter Carol McCants, Leon McKnight, Voigt Risinger Rimmer, Bobby Smith, Bobby F. Thornell, Grace B. Tisdale, Algia Williamson, Jimmy Williamson, and B. Frank Watson.

TRAINING...

EMERGENCY MEDICAL TECHNICIAN-AMBULANCE TRAINING PROGRAM

- 77 HOURS CLASSROOM INSTRUCTION
- 10 HOURS HOSPITAL AFFILIATION
- NO REGISTRATION FEE
- Curriculum approved by American Academy of Orthopaedic Surgeons



COURSE LOCATION:

Educational Building - Tuomey Hospital, Inc.
Sumter, South Carolina

REGISTER AT: Lobby of Educational Building,
Tuomey Hospital, Inc., Sumter,
South Carolina

Date Wednesday, March 15, 1972 7:00 p.m.
4:00 pm to 7 pm

Place Educational Building - Tuomey Hospital, Inc.
Sumter, S' C.

Sponsored by: SOUTH CAROLINA HOSPITAL ASSOCIATION IN COOPERATION WITH STATE DEPARTMENT OF VOCATIONAL EDUCATION STATE COMMITTEE ON TRAUMA STATE COMMITTEE ON TECHNICAL EDUCATION SOUTH CAROLINA ETV NETWORK

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